ICIP 2011

BRUSSELS

IEEE INTERNATIONAL CONFERENCE ON IMAGE PROCESSING

September 11 - 14

SQUARE Brussels Meeting Centre
Belgium

Program Guide

IEEE

IEEE Signal Processing Society

Contents

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* Lunch is not provided for by ICIP.

	Gold Hall	Silver Hall	211/212	214/216	213/215	The Arc	Hall 300	311/312	314/316	313/315
Sunday, September 11										
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Monday, September 12										
08:30	**MA.OC:** Opening Ceremony									
09:00-10:00	**MA.PL:** Seeing and the Brain									
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	Gold Hall	Silver Hall	211/212	214/216	213/215	The Arc	Hall 300	311/312	314/316	313/315
Tuesday, September 13										
09:00-10:00	**TA.PL:** Sparsity and Astronomical Data Analysis									
10:15-12:50		**TA.L1:** Advances in Motion Representation for Video Coding (Special Session)	**TA.L2:** Sparse Representation and Sparse Coding	**TA.L3:** Image Classification	**TA.L4:** Image Analysis Using Multi-Scale and Hierarchical Methods	**TA.L5:** Astronomy and Cosmology (Special Session)	**TA.L6:** High Dynamic Range Imaging and Compression	**TA.L7:** Interpolation and Super-resolution	**TA.L8:** Tomographic Imaging	
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Program at a Glance

Grand Hall 2	
Monday, September 12	
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Tuesday, September 13	
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14:20-17:35	**TP.PA:** Image & Video Representations and Applications **TP.PB:** Biomedical Image Registration and Segmentation **TP.PC:** Image/Video Coding Streaming and Recovery **TP.PD:** Computational and Magnetic Resonance Imaging **TP.PE:** Tracking and Motion Detection **TP.PF:** Scene Analysis **TP.PG:** Image Retrieval
Wednesday, September 14	
10:15-12:50	**WA.PA:** Sparse Estimation **WA.PB:** Data Hiding and Media Security **WA.PC:** Remote Sensing an Geophysical Imaging **WA.PD:** Image Segmentation **WA.PE:** Image Analysis **WA.PF:** Video Surveillance and Video Conferencing **WA.PG:** Image Processing Methods for Face Recognition
14:20-17:35	**WP.PA:** Multimedia Quality Assessment and Modeling of Visual Perception **WP.PB:** Partial Differential Equations **WP.PC:** Image Restoration and Enhancement **WP.PD:** Scalable and Adaptive Methods for Video Coding **WP.PE:** Electronic Imagery: Detection Classification and Restoration **WP.PF:** Object Detection and Recognition **WP.PG:** Video Retrieval

ICIP 2011 BRUSSELS

Message from the General Chairs

Message from the General Chairs

On behalf of the ICIP 2011 Organizing Committee, we are warmly welcoming you to Brussels, the capital of the Kingdom of Belgium and the home to the European headquarters, a buzzing, influential city where history is made. The city is a key European commercial hub, a base for many major international companies. This cosmopolitan city that loves good food lives life its way and expresses itself in a style very much its own: sometimes rebellious and mischievous, sometimes thoughtful and composed, but always very likeable. Despite its European dimension and despite all the different languages spoken on the corner of every street, Brussels is still inspired by a very "village-like" spirit. Of course, it's well known for its Grand-Place, its Atomium, its Manneken-Pis, its Gueuze and its Kriek, its waffles and its chocolates... (don't miss them!). The Brussels-Capital region consists of 19 communes and covers a total surface area of 16,179 ha. The population has around 990,000 inhabitants. Roughly a quarter of the city's total population is foreign. Brussels has a temperate, maritime climate. The average temperature in September is around 16°Celsius (± 60° Fahrenheit).

Brussels and Belgium, being at the crossroad of France, Germany and United Kingdom has been the place where Europe has been shaped. It is crossed by the border which separates Latin Europe from German Europe, which is the place where in 57 BC Julius Caesar stopped its first conquest of the Gaul. This line still separates today the two main communities of Belgium, the Flemish and the Walloon. Belgium nourishes diversity, creativity, art and technology. The Flemish textile industry came from the middle age, while the steel and glass industry made Belgium one of the main industrial countries at the beginning of the 20th century. These industrial golden ages of Belgium gave rise to art and science creativity, among which one can cite the Flemish school of Painting in the 15th century or the Solvay congresses in the beginning of the 20th century where all the key Physicists of the World, including Albert Einstein and Marie Curie, were shaping the modern Physics in Brussels under the sponsorship of Ernest Solvay. We are very proud to welcome ICIP in the continuity of this long tradition and spirit of modernity.

ICIP is the premier forum for the presentation of technological advances and research results in the fields of theoretical, experimental, and applied image and video processing. ICIP 2011, the 18th in the series that has been held annually since 1994, brings together leading engineers and scientists in image processing from around the world. As its previous editions ICIP 2011 targets an excellence level by selecting outstanding papers with the aid of an elaborate panel of experts that evaluated the papers. The Technical Program Chairs, Special Session Chairs and Tutorial Chairs supported by many collaborators managed this process while aiming at an acceptance rate of 40%. The three main 2011 themes, human computer interfacing, astronomy and cultural heritage, are reflected in the plenary talks and multiple lecture and poster sessions. This conference also awards best student papers and best papers via a meticulous process involving expert reviewers.

The conference center, the Square, is housed in the centre of Brussels in the extensive former Palais des Congrés, an elegant, architecturally significant building originally constructed for the 1958 World Expo. Many of the original features, including expansive murals by Paul Delvaux, René Magritte and Louis van Lint, have been carefully restored and are now juxtaposed with contemporary design conceived by a team of leading European designers.

Message from the General Chairs

With its spectacular views over the Brussels skyline, Square is somewhere to inspire the mind to greater heights and ambition. Brussels is the thriving centre of Europe, and Square is right in the heart of it, just a short stroll from all of the historic city's major attractions.
The welcome reception takes place in the proximity of the square in the King's Gallery (Galerie du Roi), which is one of three galleries that are better known as the Saint-Hubertus Royal Gallery. The galleries housed some 70 luxury boutiques (54 today) and about 100 private flats, all of which have been rented out since 1850. The banquet is hosted by AutoWorld, one of the most important and complete exhibitions of automobiles in Europe with more than 350 vehicles offering an overview of the general history of the car industry since its very begins.

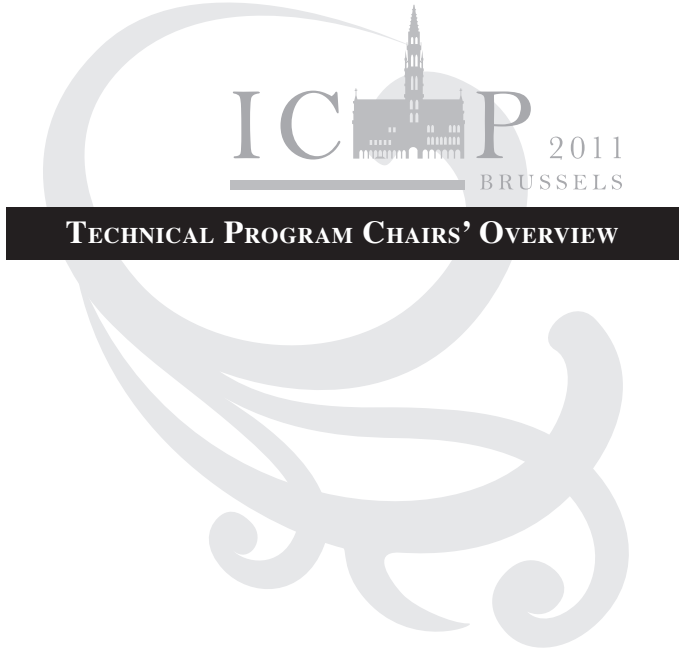
Organizing a conference like ICIP always involves many persons and addressing them individually in this word of thank would not be feasible, but we do want to mention a few people that played a key role in organizing this event. We would like to thank especially the Technical Program Chairs, Prof. Inald Lagendijk and Prof. Pierre Moulin for their guidance and hard work putting together this year's technical program, and the Local Arrangement Chairs, Alasdair Grant and Dr. Véronique Delouille, for managing the event's overall complexity and its smooth organization. They were assisted by Destrée Organisation as the Professional Congress Organizer (PCO) and by Carlson Wagonlit Travel to accommodate the social events and hotel reservations. Finally, we would like to express our gratitude to the IEEE staff and in particular to Lisa Schwarzbek for guiding us through this adventurous experience.

Evidently, we need also to thank our sponsors: IEEE and the IEEE Signal Processing Society, and our supporters: the Funds for Scientific Research in Flanders and Wallonie (FWO and FNRS), the Belspo project BCRYPT, INRIA, Hewlett-Packard, Huawei, Barco, Wiley-Blackwell, VisitBrussels and Duvel Moortgat.

It is an honor to host ICIP 2011 and we hope that attendees will have exciting and fruitful experience paving the way for future research and developments in the domain. We welcome you to Brussels and hope you will have a joyful stay!

Bienvenue à Bruxelles, Welkom in Brussel, Willkommen in Brüssel, Welcome to Brussels!

Prof. Benoit Macq, *General Chair, ICIP 2011*
Prof. Peter Schelkens, *General Co-Chair, ICIP 2011*



Technical Program Chairs' Overview

Technical Program Chairs' Overview

It is our pleasure to welcome you to the 2011 18th IEEE International Conference on Image Processing in Brussels, the world capital of beer and chocolate! Hopefully attending ICIP 2011 will stimulate both your palate as your intellect and will be an exciting, fruitful, and inspiring experience.

This year we have received 2245 paper submissions from 67 countries spread all over the globe. The Asia/Pacific region provided 44.4% of the authors, Europe, the Middle East and Africa 37.0%, North America 15.6%, and Latin America 3.0%.

The organizing committee had all submitted papers subjected to peer evaluation by 1113 volunteers who were selected based on their expertise area. They provided over 7,000 reviews, i.e., an average of about 3.2 per paper. The review process was managed per EDICS domain by 61 Area Chairs who are members of the Image, Video, and Multidimensional Signal Processing (IVMSP) Technical Committee of the IEEE Signal Processing Society, members of the Multimedia Signal Processing (MMSP) Technical Committee, or otherwise leading researchers within the IEEE Signal Processing Society Image Processing community. The Area Chairs monitored the review process and made recommendations for each paper. A total of 889 regular papers (40.6 %) have been accepted and are presented in 48 lectures and 42 poster sessions. We would like to sincerely thank everybody involved in the review process: your individual contributions have shaped the ICIP 2011 program.

The ICIP 2011 technical program includes three plenary lectures addressing the main themes of the conference: human computer interfacing, cultural heritage and astronomy. We are therefore delighted to announce the following plenary lectures at this year's ICIP conference:

- "Seeing and the Brain", by Prof. Brian Wandell from Stanford University, USA.
- "Sparsity and Astronomical Data Analysis", by Dr. Jean-Luc Starck from the Commission for Atomic Energy (CEA), France.
- "Distinguishing the 'Hand' of the Master?," by Prof. Ingrid Daubechies from Duke University, USA.

The conference kicks off on Sunday, 11th September, with 5 tutorials (3 in the morning and 2 in the afternoon). These tutorials were selected from 17 proposals submitted in response to the Call for Tutorials by a team of experts under the guidance of Prof. Jean-Philippe Thiran and Dr. Ton Kalker. The evaluation process resulted in the selection of the following state-of-the-art tutorials on vibrant research topics in image processing:

- "Convex Optimization Methods for Image Processing" by Xavier Bresson and Thomas Pock.
- "Image Analysis in Very High Resolution Optical Remote Sensing" by Jocelyn Chanussot.
- "Image and Video Analysis using Local Binary Pattern Variants" by Matti Pietikäinen and Janne Heikkilä.
- "Spatio-temporal Filtering for Multi-object Tracking in Image Sequences" by Andrea Cavallaro and Emilio Maggio.
- "ToF (Time of Flight) Depth Sensor Image Processing: from Principle to Applications" by Seungkyu Lee, Albert J.P. Theuwissen, Radu Horaud, Miles Hansard, Hwasup Lim and Seong-Jin Kim.

The ICIP 2011 program also offers 8 special sessions covering key research topics. The special sessions were selected after a meticulous reviews process of 12 submitted special session proposals in response to the Call for Special

Technical Program Chairs' Overview

Sessions under the guidance of the Special Session Chairs, Prof. Edward Delp and Prof. Ferran Marques. Each paper in the special sessions was reviewed by, at least, four reviewers. The ICIP 2011 special sessions and corresponding organizers are:

- "Advances in Motion Representation for Video Coding", by Thomas Sikora, and Andreas Krutz.
- "Advances in Transforms for Video Coding", by Marta Mrak, and Robert Cohen.
- "Analysis of Microscopy and Reconstructive Images for Applications in Medicine and Biology", by Laure Blanc-Feraud, Dave Burton, Aymeric Histace, Bogdan Matuszewski, Chris Moore, and Frederic Precioso.
- "Astronomy and Cosmology", by Yves Wiaux.
- "Compression of High-Dimensional Media Data for Interactive Navigation", by Gene Cheung, Pier Luigi Dragotti, and Vladan Velisavljevic.
- "Distributed Compression: Multimedia Applications", by Vladimir Stankovic, Lina Stankovic, and Samuel Cheng.
- "Modern Shape from Shading and Beyond", by Michael Breuß, Ariel Tankus, and Oliver Vogel.
- "Recent Advances in Web-scale Image Annotation", by Clement Chia Nanyang, Yiqun Hu, and Jinjun Wang.

To recognize top research results, ICIP 2011 includes two types of awards:

- Best Paper Award, supported by Hewlett-Packard. After nomination by the Area Chairs and guided by the reviewers' scores and comments, the nominated papers have been reevaluated by an independent panel of experts.
- Best Student Paper Awards, supported by Huawei, Barco and Wiley-Blackwell. For these awards the first author needs to be a student upon submission of the paper. ICIP 2011 has followed the process initiated at last year's ICIP in Hong Kong, highlighting the importance of the paper presentation. Eight Best Student Paper Award candidates have been selected through a review process from a list of 50 top scoring papers nominated by senior researchers.
  The eight nominated papers are invited to present their work in a Best Student Paper Award Special Session. A jury composed by the Awards Chairs will score the candidates by considering all relevant reviewing criteria, including the quality of the oral presentation.

The award process was managed by the Awards Chairs, Prof. Pascal Frossard and Prof. Béatrice Pesquet-Popescu. They will present the awards during the conference banquet.

As Technical Program Chairs, we would like to thank the plenary speakers, tutorials presenters, reviewers, session chairs, and all authors and presenters for their contributions to ICIP 2011. In particular we would like to thank the Area Chairs for their instrumental support for building a high quality ICIP 2011 program. Finally, we would like to express our appreciation for the Destrée Organisation, in particular Nicolas Le Brun and his team, for their support in organizing ICIP 2011.

We look forward to welcoming you in Brussels,

Prof. Inald Lagendijk and Prof. Pierre Moulin
ICIP 2011 Technical Program Chairs

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ICIP 2011 BRUSSELS

Plenary Talks

Monday, September 12, 09:00 - 10:00

Human Media Interaction : **SEEING AND THE BRAIN**

Brian Wandell
Stanford's Center for Cognitive and Neurobiological Imaging,
Stanford University.
Location: Gold Hall

Abstract

For the past twenty-five years scientists and engineers have collaborated on a wide variety of hardware and image processing methods to better image and understand the brain. These technologies have clarified structures and functions over an enormous range of spatial and temporal scales, from molecules to whole brain. One of the important technologies is magnetic resonance imaging (MRI), which is a non-invasive means for measuring both activity and structure in the living human brain. Many of the achievements in human neuroimaging with MRI can be traced to advances in image and signal processing. I will review some advances in human neuroimaging using the visual pathways, my own research area, as an example system. While most of the human visual pathways were inaccessible to measurement thirty years ago, today we can place a subject in an MR scanner and measure fifteen visual field maps and identify the white matter pathways in experiments requiring only forty-five minutes. These measurements enable us to track brain activity as children learn to see words, or as people perceive motion, color and form. While we have learned a great deal from these technologies, most MRI measurements produce images without units, and these are analyzed qualitatively or relative to arbitrary baselines. In the next phase of human neuroimaging we will need to create image processing tools that are coupled to biological quantities by models.
The generic image processing methods we use now will be replaced by methods that are based on physical models of the measurement instrument and tissue properties. The quantitative image processing may enable us to learn about properties of biological tissue and expand our understanding of brain in health and disease.

Joint work with Michal Ben-Shachar, Alyssa Brewer, Robert Dougherty, Kendrick Kay, Aviv Mezer, L. Michael Perry, Jon Winawer, and Jason Yeatman

Biography

Brian A. Wandell is the first Isaac and Madeline Stein Family Professor. He joined the Stanford Psychology faculty in 1979 and is a member, by courtesy, of Electrical Engineering, Ophthalmology, and Radiology.

Wandell is Director of the center of Cognitive and Neurobiological Imaging (CNI). His research projects center on how we see, spanning topics from visual disorders, reading development in children, to digital imaging devices and algorithms.

Educational background. Wandell graduated from the University of Michigan in 1973 with a B.S. in mathematics and psychology. In 1977, he earned a Ph.D. in social science from the University of California at Irvine. After a year as a postdoctoral fellow at the University of Pennsylvania, he joined the faculty

of Stanford University in 1979. Professor Wandell was promoted to associate professor with tenure in 1984 and became a full professor in 1988.

Neuroscience Wandell's work in visual neuroscience uses functional and structural MRI along with behavior testing and modeling to understand the action of the visual portions of the brain. His research includes studies of the organization of the visual field maps in the human brain, color and motion processing within these maps, and the potential for reorganization following injury or developmental disorders.
The Wandell lab develops tools for diffusion imaging and functional MRI. Recent years they have carried out a series of studies on brain plasticity and development. In one example, they are carrying out a longitudinal study measuring the development of structures and signals in visual cortex in children, aged 8-12, as they become skilled readers. The lab's measurements of developmental changes during the acquisition of skilled reading are intended to understand how visual signals become rapidly identified and classified in the process of learning to read.

Digital imaging. Brian Wandell's research includes image system engineering and visual neuroscience. In cooperation with Professor Emeritus Joseph Goodman (a faculty member in Stanford's School of Engineering), Professor Wandell founded the university's Stanford Center for Image Systems Engineering Program. As part of this research, Wandell and his team study and build devices used for digital imaging, including image sensors, high dynamic range displays, and software simulations of the digital imaging pipeline.

Teaching. Brian Wandell's teaching at Stanford reflects his multiple areas of expertise. He has taught courses on behavior, perception, cognitive and behavioral neuroscience, image systems and computational He has also led classes on color science and computer applications for engineers and managers from more than 200 companies. In addition to numerous scientific articles, Brian Wandell is the author of the vision science textbook Foundations of Vision. He is an associate editor of the Journal of Vision, the Journal of Neuroscience and Neural Networks. He has served as a consultant and technical advisor for a number of corporations and has patented some of the products of his work.

Tuesday, September 13, 09:00 - 10:00

Astronomy : SPARSITY AND ASTRONOMICAL DATA ANALYSIS

Jean-Luc Starck
Senior scientist, Service d'Astrophysique, CEA-Saclay, France.
Location: Gold Hall

Abstract

Wavelets have been very successfull for many astronomical applications such filtering, deconvolution, source detection or compression. Wavelets have however some limitations when the data present anisotropic features, and other sparse representations such as ridgelet or curvelet can also be used in some specific applications. We will first review some of the sparsity based methods which have been proposed and we will show how such approaches can be used in important spatial projects such as PLANCK or EUCLID.

Biography

J.-L. Starck has a Ph.D. from Nice Observatory and an Habilitation from University Paris XI. He was a visitor
at the European Southern Observatory (ESO) in 1993, at UCLA in 2004 and at Stanford's statistics department in 2000 and 2005.

Since 1994, he is a researcher at Commission for Atomic Energy (CEA), France, where he is leader of the multiresolution project and a core team member of the Planck European Space Agency project. His research interests include image processing, statistical methods in astrophysics, and cosmology. Co-author of four monographs on astronomical image analysis, and coeditor of ten conferences including Astronomical Data Analysis conferences, he is an expert in multiscale methods such as wavelets and curvelets.

Wednesday, September 14, 09:00 - 10:00

Cultural Heritage : DISTINGUISHING THE "HAND" OF THE MASTER?

Ingrid Daubechies
Professor of mathematics at Duke University.
Location: Gold Hall

Abstract

Paintings by Goossen van der Weyden, an early 16th century Flemish painter, have long been known not all to be entirely of the hand of the master himself -- it was customary in his time that artists employed one or more apprentices in their workshops, who could be given the task to execute (less crucial) parts of some paintings.

As is customary in 16th century paintings as well, many show underdrawings, which can be made visible by infrared reflectometry. In the case of Goosen van der Weyden, some of these underdrawings are much more structured than others, giving more technical guidance for the subsequent operation of painting; different underdrawing styles can occur within the same painting.

An interesting question, from the art historical point of view, is whether the painting style, as characterized by an analysis of the visible detail of the painted surface, can be classified "blindly" (i.e. without a priory knowledge of the underdrawing style) in accordance with the underdrawing classification. We studied this question, and found that this was indeed the case.

Work done in collaboration with Robert Calderbank, Sina Jafarpour, Maximiliaan Martens and Josephine Wolff.

Biography

Daubechies was born in Houthalen, Belgium, as the daughter of Marcel Daubechies (a civil mining engineer) and Simonne Duran (then a homemaker, later a criminologist). Daubechies completed her undergraduate studies in physics at the Vrije Universiteit Brussel in 1975. She obtained her Ph.D. in theoretical physics in 1980, and continued her research career at that institution until 1987, rising through the ranks to positions roughly equivalent with research assistant-professor in 1981 and research associate-professor 1985.

In 1985 Daubechies met mathematician Robert Calderbank, then on a 3-month exchange visit from AT&T Bell Laboratories, New Jersey to the Brussels-based mathematics division of Philips Research; they married in 1987. Daubechies then moved to the United States, taking a position at the Murray Hill AT&T Bell Laboratories' New Jersey facility. Earlier that same year, she had made her best-known discovery: the construction of compactly supported continuous wavelets.

Since 1993, Daubechies has been a full professor at Princeton University, where she is active especially within the Program in Applied and Computational Mathematics. She was the first female full professor of Mathematics at Princeton. In January 2011 she moved to Duke University to serve as a professor of Mathematics. She is the president of the International Mathematical Union (2011–2014).

The name Daubechies is widely associated with the orthogonal Daubechies wavelet and the biorthogonal CDF wavelet. A wavelet from this family of wavelets is now used in the JPEG 2000 standard.

Tutorials

Sunday, September 11,

Tutorial Co-Chairs: Ton Kalker, Huawei, USA;
Jean-Philippe Thiran, École Polytechnique Fédérale de Lausanne, Switzerland

09:00 - 12:30

SA.T2 **IMAGE AND VIDEO ANALYSIS USING LOCAL BINARY PATTERN VARIANTS**
Presenters: Matti Pietikäinen, Janne Heikkilä
Room: 214/216

SA.T3 **CONVEX OPTIMIZATION METHODS FOR IMAGE PROCESSING**
Presenters: Xavier Bresson, Thomas Pock
Room: 213/215

SA.T4 **IMAGE ANALYSIS IN VERY HIGH RESOLUTION OPTICAL REMOTE SENSING**
Presenters: Jocelyn Chanussot
Room: 211/212

14:00 - 17:30

SP.T5 **SPATIO-TEMPORAL FILTERING FOR MULTI-OBJECT TRACKING IN IMAGE SEQUENCES**
Presenters: Andrea Cavallaro, Emilio Maggio
Room: 213/215

SP.T7 **TOF (TIME OF FLIGHT) DEPTH SENSOR IMAGE PROCESSING: FROM PRINCIPLE TO APPLICATIONS**
Presenters: Seungkyu Lee, Albert J.P. Theuwissen, Radu Horaud, Miles Hansard, Hwasup Lim, Seong-Jin Kim
Room: 214/216

Committee Meetings

Monday, September 12

13:00-14:30
IVMSP Technical Committee luncheon
Place: SQUARE - Brussels Meeting Centre
Room: 204

17:30-19:00
Associate Editor training
Place: SQUARE - Brussels Meeting Centre
Room: 204

Tuesday, September 13

07:00-09:00
Conference Board Executive Submcommittee
Place: Meridien Hotel
Room: Boardroom

13:00-14:30
IEEE Transactions on Image Processing Editorial Board, Luncheon Meeting
Place: Meridien Hotel
Room: Sambal

14:30-17:30
Publications Board meeting
Place: Meridien Hotel
Room: Sésame

Wednesday, September 14

12:50-14:20
ICIP to ICIP
Place: SQUARE - Brussels Meeting Centre
Room: 204

13:00-15:00
Executive Committee Luncheon Meeting
Place: Meridien Hotel
Room: Sésame

18:00-19:00
Conference Board Dinner
Place: Meridien Hotel
Room: Gomasio

19:00-23:59
Conference Board Meeting
Place: Meridien Hotel
Room: Sambal

Thursday, September 15

08:00-18:00
Board of Governors

Place:	Meridien Hotel	
08:00-09:00	**Breakfast:**	Gomasio
09:00-18:00	**Meeting:**	Sambal
12:00-14:00	**Luncheon:**	Gomasio

Exhibitors

Room: Grand Hall 2

Exhibition opening hours:

Monday, September 12	09:30 - 17:30
Tuesday, September 13	09:30 - 17:30
Wednesday, September 14	09:30 - 17:30

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www.ibbt.com

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www.alcatel-lucent.com

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IEEE Signal Processing Society
www.signalprocessingsociety.org

Vrije Universiteit Brussel
www.vub.ac.be

Université catholique de Louvain
www.uclouvain.be

Springer-Verlag
www.springer.com

Wiley Blackwell
Web: www.wiley.com

Show and Tell Demonstration

Date: Tuesday, September 13
Room: 313/315

Wolfram *Mathematica 8*

Bart Romeny:
10:15-11:30 "Mathematica Applied to Biomedical Image Processing Tasks"

Markus van Almsick:
11:30-11:50 "A Quick Mathematica 8 Introduction"
11:50-12:10 "Image Processing in Mathematica"
12:10-12:30 "Development Options: Rapid Prototyping in Mathematica, C and GPU compilation, and HPC"

Social Events

Welcome Reception

Registration for this event is required
Place: Gallerie du Roi
Date: Sunday, September 11
Time: **19:00 - 21:00**

Entrance to event will be from Rue de l'Ecuyer. Please see map below for directions from the SQUARE.
The Gallery is idealy located, 5min from the SQUARE, in the heart of Brussels. A large variety of restaurants are within walking distance of the venue and of the beautifull Brussels main square "Grand Place".

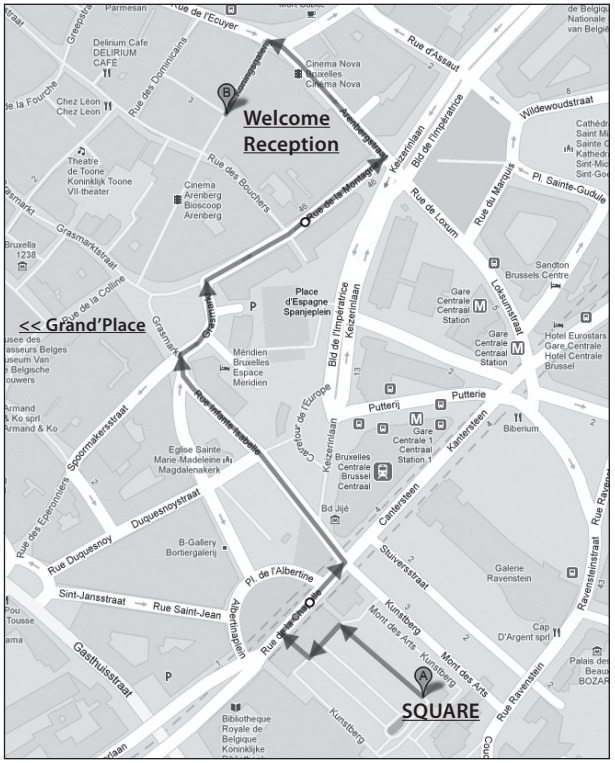
Banquet Dinner

Registration for this event is required
Place: Autoworld
Date: Tuesday, September 13
Time: **19:00 - 22:00**

The award ceremony will be held during this event.

How to get there:
You can reach the venue by taking the underground from Central Station to Mérode (Line 1 direction Stockel or line 5 direction Hermann-Debroux). From there it is a 5min walk through the Cinquantenaire park. Ticket info can be found at www.stib.be.

Directions by foot to the Welcome Reception



Registration & Internet access

Registration is located at the main entrance of the SQUARE - the Glass Cube.

Registration hours are as follows:

Sunday, September 11	08:30 - 19:00
Monday, September 12	07:30 - 17:30
Tuesday, September 13	08:30 - 17:30
Wednesday, September 14	08:30 - 17:30

Internet access

Wifi will be available for all attendees. In order to gain access, please contact the registration desk.

Speakers' Ready Room

Presenters in a lecture session are requested to come to the Speakers' Ready Room at least 1 hour before the session starts (or the day before for the morning sessions) to upload their presentation.

Location: Lounge - Magritte office

Opening hours Speakers' Ready Room:

Sunday, September 11	14:00 - 17:30
Monday, September 12	08:00 - 17:30
Tuesday, September 13	08:00 - 17:30
Wednesday, September 14	08:00 - 17:30

Visit Brussels & Tours

Our supporter VisitBrussels, has a booth located at the main entrance of the SQUARE opposite the conference registration area. They will provide help and information with regards to Brussels and its surrounding area. Tours will be handled by Brussels City Tours and can be booked up until the day before the tour. Information can be found on the ICIP website.

General Information

Coffee Breaks

All coffee breaks will be held in Grand Hall 2.

Parking

There is an underground parking situated under the conference venue that allows direct access to the SQUARE Meeting Centre Brussels. The parking is called "Albertine - Square" and is situated at Place de la Justice, 16. Spaces will not be provided for participants. Expenses for the parking will be at the participants own expense. Price per hour: 2,50 €

Language

Brussels has two official languages: French and Dutch.
All street names and train stations are bilingual.

Important telephone numbers

100: ..... Emergency call number: Ambulances and fire brigade
112: ..... General Emergency for Europe
101: ..... Police
070 245 245: ..... Anti poison center (FR and NL)
071 448 000: ..... Burns center
105: ..... Red Cross Belgium

Electricity

The electrical current in Belgium is 220 volts (50Hz).
If your equipment requires different voltage, you will need an electrical transformer.

Getting around in Brussels:

Walking
Thanks to its many parks, gardens and forests, Brussels has no fewer than forty square metres of green space per inhabitant. It's the greenest capital city in Europe. Luckily Brussels is a fairly small city, and it is possible to walk to the majority of sights from the conference venue. The centre of town has many traffic-free streets around the Grand'Place.

Public transport
Brussels' public transport system is made up of metro, rail, buses and trams with tickets valid for an hour. Tickets are sold at metro and rail stations, on buses and trams, at STIB info centres and at newsagents.

You can find Metro, Tram and Bus timetables and maps at www.stib.be.

Taxis
Taxis take up to four people and the tip is included in the meter fare.
Watch the meter as Brussels taxi drivers can be shifty.

IEEE Non-Discrimination Policy
To view the IEEE Non-Discrimination Policy, please visit:
http://www.ieee.org/about/corporate/governance/p9-26.html?WT.mc_id=hpf_pol

Technical Program

MA.L1 Monday, September 12, 10:15-12:50

Modern Shape from Shading and Beyond (Special Session)
Room: Silver Hall
Chair: Michael Breuss, Saarland University, Germany

10:15
MA.L1.1 MODERN SHAPE FROM SHADING AND BEYOND
Michael Breuss, Saarland University, Germany; Oliver Vogel, Saarland University, Germany; Ariel Tankus, Technion, Israel

10:35
MA.L1.2 NUMERICAL SCHEMES FOR ADVANCED REFLECTANCE MODELS FOR SHAPE FROM SHADING
Oliver Vogel, Saarland University, Germany; Emiliano Cristiani, SAPIENZA - Universita di Roma, Italy

11:30
MA.L1.3 SHAPE FROM SHADING WITH SPECULAR HIGHLIGHTS: ANALYSIS OF THE PHONG MODEL
Michael Breuss, Saarland University, Germany; Yong Chul Ju, Saarland University, Germany

11:50
MA.L1.4 SHAPE-FROM-SHADING UNDER COMPLEX NATURAL ILLUMINATION
Rui Huang, University of York, United Kingdom; William Smith, University of York, United Kingdom

12:10
MA.L1.5 RECONSTRUCTION OF NON-LAMBERTIAN SURFACES BY FUSION OF SHAPE FROM SHADING AND ACTIVE RANGE SCANNING
Steffen Herbort, Dortmund University of Technology, Germany; Arne Grumpe, Dortmund University of Technology, Germany; Christian Wöhler, Dortmund University of Technology, Germany

12:30
MA.L1.6 SHAPE FROM SPECULAR REFLECTION IN CALIBRATED ENVIRONMENTS AND THE INTEGRATION OF SPATIAL NORMAL FIELDS
Jonathan Balzer, King Abdullah University of Science and Technology, Saudi Arabia

MA.L2 Monday, September 12, 10:15-12:50

Structural Models (Lecture)
Room: 211/212
Chair: Jalal Fadili, GREYC CNRS UMR 6072, ensicaen, France

10:15
MA.L2.1 JOINT POSE ESTIMATION AND ACTION RECOGNITION IN IMAGE GRAPHS
Raja Kumar, IRISA, France; Ivan Laptev, INRIA Paris - Rocquencourt, France; Patrick Pérez, INRIA, France; Lionel Oisel, Thomson, France

10:35
MA.L2.2 INFERRING 3D BODY POSE USING VARIATIONAL SEMI-PARAMETRIC REGRESSION
Yan Tian, Hikvision Digital Technology Co. Ltd, P.R. China; Yonghua Jia, Hikvision Digital Technology Co. Ltd, P.R. China; Yuan Shi, Carnegie Mellon University, USA; Yong Liu, Beijing University of Posts and Telecommunications, P.R. China; Ji Hao, Carnegie Mellon University, USA; Leonid Sigal, Disney Research Pittsburgh, USA

11:30
MA.L2.3 AUTOMATIC TARGET RECOGNITION USING DISCRIMINATIVE GRAPHICAL MODELS
Umamahesh Srinivas, Penn State University, USA; Vishal Monga, Pennsylvania State University, USA; Raghu Raj, None, USA

11:50
MA.L2.4 A BELIEF PROPAGATION ALGORITHM FOR BIAS FIELD ESTIMATION AND IMAGE SEGMENTATION
Rui Huang, Huazhong University of Science and Technology, P.R. China; Nong Sang, Huazhong University of Science and Technology, P.R. China; Vladimir Pavlovic, Rutgers, USA; Dimitri Metaxas, Rutgers University, USA

12:10
MA.L2.5 PLANARITY-ENFORCING HIGHER-ORDER GRAPH CUT
Thomas Weibel, Fraunhofer ITWM / CRAN, Germany; Christian Daul, CRAN INPL Nancy, France; Didier Wolf, CRAN INPL Nancy, France; Ronald Rösch, Fraunhofer ITWM, Germany

12:30
MA.L2.6 LEARNING STRUCTURAL CONJUNCTION OF IMAGE CONTENT BY SPARSE GRAPHICAL MODEL
Donghui Wang, Zhejiang University, P.R. China; Xiao Deng, Zhejiang University, P.R. China

MA.L3 Monday, September 12, 10:15-12:50

Biomedical Image Analysis (Lecture)
Room: 214/216
Chair: Brian C Lovell, NICTA, Australia

10:15
MA.L3.1 AUTOMATIC QUALITY ENHANCEMENT AND NERVE FIBRE LAYER ARTEFACTS REMOVAL IN RETINA FUNDUS IMAGES BY OFF AXIS IMAGING
Luca Giancardo, Oak Ridge National Laboratory, USA; Fabrice Meriaudeau, Uni Bourgogne, France; Thomas Karnowski, Oak Ridge National Laboratory, USA; Yaqin Li, U. Tennessee Health Sciences Center, USA; Kenneth W. Tobin, Oak Ridge National Laboratory, USA; Edward Chaum, U. Tennessee Health Sciences Center, USA

10:35
MA.L3.2 ADVANCED STATISTICAL MATRICES FOR TEXTURE CHARACTERIZATION: APPLICATION TO DNA CHROMATIN AND MICROTUBULE NETWORK CLASSIFICATION
Guillaume Thibault, Centre de Morphologie Mathematique, France; Jesus Angulo, MINES Paristech, France; Fernand Meyer, Mines ParisTech, Ecole des Mines de Paris, France

11:30
MA.L3.3 COMPARISON OF ENERGY MINIMIZATION METHODS FOR 3-D BRAIN TISSUE CLASSIFICATION
Subrahmanyam Gorthi, Ecole Polytechnique Fédérale de Lausanne, Switzerland; Jean-Philippe Thiran, École Polytechnique Fédérale de Lausanne, Switzerland; Meritxell Bach Cuadra, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland;

11:50
MA.L3.4 CLUMP SPLITTING VIA BOTTLENECK DETECTION
Hui Wang, University of Alberta, Canada; Hong Zhang, University of Alberta, Canada; Nilanjan Ray, University of Alberta, Canada

12:10
MA.L3.5 TEXTURE CLASSIFICATION OF SCARRED AND NON-SCARRED MYOCARDIUM IN CARDIAC MRI USING LEARNED DICTIONARIES
Lasya Kotu, University of Stavanger, Norway; Kjersti Engan, University of Stavanger, Norway; Trygve Eftestøl, University of Stavanger, Norway; Stein Ørn, Stavanger University Hospital, Norway; Leik Woie, Stavanger University Hospital, Norway;

12:30
MA.L3.6 AUTOMATIC IVUS MEDIA-ADVENTITIA BORDER EXTRACTION USING DOUBLE INTERFACE GRAPH CUT SEGMENTATION
Ehab Essa, Swansea University, United Kingdom; Xianghua Xie, Swansea University, United Kingdom; Igor Sazonov, Swansea, United Kingdom; Perumal Nithiarasu, Swansea University, United Kingdom

MA.L4 Monday, September 12, 10:15-12:50

Nonlinear and Linear Filtering (Lecture)
Room: 213/215
Chair: Dinei Florencio, Microsoft Research, USA

10:15
MA.L4.1 NON-LINEARIZATION OF FREE SCHRODINGER EQUATION AND PSEUDO-MORPHOLOGICAL COMPLEX DIFFUSION OPERATORS
Jesus Angulo, MINES Paristech, France

10:35
MA.L4.2 ADAPTIVE FILTERING OF RASTER MAP IMAGES USING OPTIMAL CONTEXT SELECTION
Minjie Chen, University of Eastern Finland, Finland; Mantao Xu, Shanghai Dian Ji University, P.R. China; Pasi Fränti, University of Eastern Finland, Finland

11:30
MA.L4.3 FM PROCESSING WITH GENERALIZED AMPLITUDE & PHASE: APPLICATION TO MODULATION DOMAIN GEOMETRIC IMAGE TRANSFORMATIONS
Chuong Nguyen, University of Oklahoma, USA; Jonathan Williams, University of Oklahoma, USA; Joseph P. Havlicek, University of Oklahoma, USA; Murad Ozaydin, University of Oklahoma, USA;

11:50
MA.L4.4 APPROXIMATING IMAGE FILTERS WITH BOX FILTERS
Bernardo Pires, Carnegie Mellon University, USA; Karanhaar Singh, Carnegie Mellon University, USA; Jose Moura, Carnegie Mellon University, USA

12:10
MA.L4.5 COSINE INTEGRAL IMAGES FOR FAST SPATIAL AND RANGE FILTERING
Elhanan Elboher, The Hebrew University of Jerusalem, Israel; Michael Werman, Hebrew University of Jerusalem, Israel

12:30
MA.L4.6 AN OPTIMAL DESIGN OF FIR FILTERS WITH DISCRETE COEFFICIENTS AND IMAGE SAMPLING APPLICATION
Kha Ha, University of New South Wales, Australia; Hoang D. Tuan, University of Technology, Sydney, Australia; Truong Nguyen, University of California in San Diego, USA

MA.L5 Monday, September 12, 10:15-12:50

Image Search and Retrieval (Lecture)
Room: The Arc
Chair: Shin'ichi Satoh, National Institute of Informatics, Japan

10:15
MA.L5.1 EXPLOITING CONTEXTUAL INFORMATION FOR RANK AGGREGATION
Daniel Pedronette, University of Campinas, Brazil; Ricardo Torres, Institute of Computing, State University of Campinas, Brazil

10:35
MA.L5.2 LOCAL GEOMETRIC CONSISTENCY CONSTRAINT FOR IMAGE RETRIEVAL
Hongtao Xie, Ke Gao, Yong-Dong Zhang, Jintao Li, Institute of Computing Technology, Chinese Academy of Sciences, P.R. China

11:30
MA.L5.3 GENERATING VOCABULARY FOR GLOBAL FEATURE REPRESENTATION TOWARDS COMMERCE IMAGE RETRIEVAL
Zhang Chen, Lingyu Duan, Wang Chunyu, Tiejun Huang, Wen Gao, Peking University, P.R. China

11:50
MA.L5.4 EFFICIENT BAG-OF-FEATURE KERNEL REPRESENTATION FOR IMAGE SIMILARITY SEARCH
Frederic Precioso, LIP6 CNRS UMR 7606, France; Matthieu Cord, UPMC Paris 6, France; David Gorisse, ETIS, CNRS, ENSEA, UniversityCergy-Pontoise, France; Nicolas Thome, University Pierre et Marie Curie, France

12:10
MA.L5.5 GRID-BASED LOCAL FEATURE BUNDLING FOR EFFICIENT OBJECT SEARCH AND LOCALIZATION
Jiang Yuning, Nanyang Technology University, Singapore; Jingjing Meng, Motorola Inc., USA; Junsong Yuan, Nanyang Technological University, Singapore

12:30
MA.L5.6 MULTIPLE DICTIONARIES FOR BAG OF WORDS LARGE SCALE IMAGE SEARCH
Mohamed Aly, Caltech, USA; Mario Munich, Evolution Robotics, USA; Perona, Caltech, USA

MA.L6 Monday, September 12, 10:15-12:50

3D Coding and Representation (Lecture)
Room: Hall 300
Chair: Anthony Vetro, Mitsubishi Electic Research Laboratories, USA

10:15
MA.L6.1 BLOCK-ADAPTIVE PALETTE-BASED PREDICTION FOR DEPTH MAP CODING
Shinya Shimizu, Hideaki Kimata, Shiori Sugimoto, Norihiko Matsuura, NTT Corporation, Japan

10:35
MA.L6.2 REGION-BASED ADAPTIVE BILATERAL FILTER IN DEPTH MAP CODING
Ilsoon Lim, Samsung Electronics, Korea; Hochen Wey, Samsun Advanced Institute of Technology, Samsung Electronics Co., Ltd., Korea; Jaejoon Lee, Samsung Electronics, Korea

11:30
MA.L6.3 OBJECT-BASED LAYERED DEPTH IMAGES FOR IMPROVED VIRTUAL VIEW SYNTHESIS IN RATE-CONSTRAINED CONTEXT
Vincent Jantet, ENS Cachan, Antenne de Bretagne, France; Christine Guillemot, INRIA, France; Luce Morin, INSA-Rennes, France

11:50
MA.L6.4 TRANSFORM DOMAIN SPARSIFICATION OF DEPTH MAPS USING ITERATIVE QUADRATIC PROGRAMMING
Gene Cheung, National Institute of Informatics, Japan; Junichi Ishida, Chuo University, Japan; Akira Kubota, Chuo University, Japan; Antonio Ortega, USC, USA

12:10
MA.L6.5 SPARSE STEREO IMAGE CODING WITH LEARNED DICTIONARIES
Dimitri Palaz, EPFL, Switzerland; Ivana Tosic, UC Berkeley, USA; Pascal Frossard, Swiss Federal Institute of Technology - EPFL, Switzerland

12:30
MA.L6.6 EFFICIENT COMPRESSION METHOD FOR INTEGRAL IMAGES USING MULTI-VIEW VIDEO CODING
Shasha Shi, Télécom-Bretagne, France; Patrick Gioia, Orange Labs, France; Gérard Madec, Télécom-Bretagne, France

MA.L7 Monday, September 12, 10:15-12:50

Error Resilience and Channel Coding for Image & Video Systems (Lecture)
Room: 311/312
Chair: Aggelos K Katsaggelos, Northwestern University, USA

10:15
MA.L7.1 BELIEF CONSENSUS FOR DISTRIBUTED ACTION RECOGNITION
Ahmed T Kamal, University of California, Riverside, USA; Bi Song, University of California at Riverside, USA; Amit Roy-Chowdhury, University of California, Riverside, USA

10:35
MA.L7.2 CONTENT-AWARE UTILITY-FAIR VIDEO STREAMING IN WIRELESS BROADCASTING NETWORKS
Wen Ji, Institute of Computing Technology, Chinese Academy of Sciences, P.R. China; Zhu Li, Huawei Technology USA, USA; Yiqiang Chen, Institute of Computing Technology, Chinese Academy of Sciences, P.R. China

11:30
MA.L7.3 RESOURCE MANAGEMENT FOR WIRELESS VISUAL SENSOR NETWORKS BASED ON INDIVIDUAL VIDEO CHARACTERISTICS
Angeliki Katsenou, University of Ioannina, Greece; Lisimachos P Kondi, University of Ioannina, Greece; Konstantinos Parsopoulos, University of Ioannina, Greece

11:50
MA.L7.4 TRACKING-OPTIMIZED QUANTIZATION FOR H.264 COMPRESSION IN TRANSPORTATION VIDEO SURVEILLANCE APPLICATIONS
Eren Soyak, Sotirios A. Tsaftaris, Aggelos K. Katsaggelos, Northwestern University, USA

12:10
MA.L7.5 DYNAMIC GOP SIZE CONTROL FOR LOW DELAY DISTRIBUTED VIDEO CODING
Krishna Rao Vijayanagar, Illinois Institute of Technology, USA; Joohee Kim, Illinois Institute of Technology, USA; Name, Affiliation, Country

12:30
MA.L7.6 OPTIMAL IMAGE TRANSMISSION OVER VISUAL SENSOR NETWORKS
sungjin Lee, Yonsei University, Korea; Sanghoon Lee, Yonsei University, Korea; Alan C Bovik, University of Texas at Austin, USA

MA.L8 Monday, September 12, 10:15-12:50

Radar Imaging and Remote Sensing (Lecture)
Room: 314/316
Chair: Sabine Süsstrunk, EPFL, Switzerland

10:15
MA.L8.1 BAYESIAN TV DENOISING OF SAR IMAGES
MIguel Vega, Javier Mateos, Rafael Molina, Universidad de Granada, Spain; Aggelos K. Katsaggelos, Northwestern University, USA

10:35
MA.L8.2 SAR IMAGE CLASSIFICATION WITH NON-STATIONARY MULTINOMIAL LOGISTIC MIXTURE OF AMPLITUDE AND TEXTURE DENSITIES
Koray Kayabol, Aurelie Voisin, INRIA, France; Josiane Zerubia, INRIA, Sophia Antipolis, France

11:30
MA.L8.3 SPARSITY-DRIVEN IMAGE FORMATION AND SPACE-VARIANT FOCUSING FOR SAR
Ozben Onhon, Sabanci University, Turkey; Mujdat Cetin, Sabanci University, Turkey

11:50
MA.L8.4 INCREMENTAL EVOLUTION OF COLLECTIVE NETWORK OF BINARY CLASSIFIER FOR POLARIMETRIC SAR IMAGE CLASSIFICATION
Stefan Uhlmann, Serkan Kiranyaz, Moncef Gabbouj, Tampere University of Technology, Finland; Turker Ince, Affiliation, Turkey

12:10
MA.L8.5 MULTISPECTRAL INTEREST POINTS FOR RGB-NIR IMAGE REGISTRATION
Damien Firmenich, Matthew Brown, Sabine Süsstrunk, EPFL, Switzerland

12:30
MA.L8.6 CONTRAST ENHANCEMENT AND DENOISING OF POISSON AND GAUSSIAN MIXTURE NOISE FOR SOLAR IMAGES
Bojana Begovic, Royal College Building 204 George Street, United Kingdom; Vladimir Stankovic, University of Strathclyde, United Kingdom; Lina Stankovic, University of Strathclyde, United Kingdom

MA.PA Monday, September 12, 10:15-12:50

Image & Video Representation - Perception and Quality Models for Images & Video (Poster)

Room: Grand Hall 2
Chair: Junyong You, Norwegian University of Science and Technology, Norway

10:15
MA.PA.1 AN INCREMENTAL/DECREMENTAL DELAUNAY MESH-GENERATION FRAMEWORK FOR IMAGE REPRESENTATION
Michael D. Adams, University of Victoria, Canada

10:15
MA.PA.2 A SYMMETRIC KL DIVERGENCE BASED SPATIOGRAM SIMILARITY MEASURE
Zhijun Yao, Hua Zhong University of Science and Technology, P.R. China; Zhongyuan Lai, Wenyu Liu, Huazhong University of Science and Technology, P.R. China

10:15
MA.PA.3 ONLINE SPARSE LEARNING UTILIZING MULTI-FEATURE COMBINATION FOR IMAGE CLASSIFICATION
Kunyu Zhang, Dalian University of Technology, P.R. China

10:15
MA.PA.4 EVALUATION FRAMEWORK ON TRANSLATION-INVARIANT REPRESENTATION FOR CUMULATIVE FOOT PRESSURE IMAGE
Shuai Zheng, Institute of Automation, Chinese Academy of Sciences, P.R. China; Kaiqi Huang, Chinese Academy of Sciences, P.R. China; Tieniu Tan, NLPR, P.R. China

10:15
MA.PA.5 IMAGE PATTERN DISCOVERY BY USING THE SPATIAL CLOSENESS OF VISUAL CODE WORDS
Meng Sun, Katholieke Universiteit Leuven, Belgium; Hugo Van Hamme, Universtity of leuven, Belgium

10:15
MA.PA.6 ACTION RECOGNITION USING CORRELOGRAM OF BODY POSES AND SPECTRAL REGRESSION
Ling Shao, The University of Sheffield, United Kingdom; Di Wu, The University of Sheffield, United Kingdom; Xiuli Chen, The University of Manchester, United Kingdom

10:15
MA.PA.7 A DISCRIMINATIVE LEARNING TECHNIQUE FOR MOBILE LANDMARK RECOGNITION
Tao Chen, Nanyang Technological University, Singapore; Kim Hui Yap, Nanyang Technological University, Singapore; Lap-Pui Chau, Nanyang Technological University, Singapore

10:15
MA.PA.8 SSIM-BASED NON-LOCAL MEANS IMAGE DENOISING
Abdul Rehman, University of Waterloo, Canada; Zhou Wang, University of Waterloo, Canada

10:15
MA.PA.9 BIOLOGICALLY MOTIVATED FEATURE EXTRACTION USING THE SPIRAL ARCHITECTURE
Bryan W. Scotney, University of Ulster, United Kingdom; Sonya A Coleman, University of Ulster, United Kingdom; Bryan Gardiner, University of Ulster, United Kingdom

(Continued on next page.)

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10:15
MA.PA.11 ACCURATE DISTORTION MEASUREMENT FOR B-SPLINE-BASED SHAPE CODING
Zhongyuan Lai, Zhen Zuo, Huazhong University of Science and Technology, P.R. China; Zhe Wang, Zhijun Yao, Wenyu Liu, Huazhong University of Science and Technology, P.R. China;

10:15
MA.PA.12 ABNORMAL MOTION SELECTION IN CROWDS USING BOTTOM-UP SALIENCY
Matei Mancas, Nicolas Riche, Julien Leroy, Bernard Gosselin, University of Mons, Belgium

10:15
MA.PA.13 MOTION TRAJECTORY BASED VISUAL SALIENCY FOR VIDEO QUALITY ASSESSMENT
Lin Ma, Department of Electronic Engineering, Songnan Li, King N. Ngan, Chinese University of Hong Kong, Hong Kong

10:15
MA.PA.14 PERCEPTUAL NOISE SHAPING IN DUAL-TREE COMPLEX WAVELET TRANSFORM FOR IMAGE CODING
Junwu Zhu, Carleton University, Canada; Richard Dansereau, Carleton University, Canada; Chris Joslin, Carleton University, Canada

10:15
MA.PA.15 FRACTAL IMAGE CODING USING SSIM
Jianji Wang, Xi'an Jiaotong University, P.R. China; Yuehu Liu, Xi'an Jiaotong University, P.R. China; Ping Wei, Xi'an Jiaotong University, P.R. China; Zhiqiang Tian, Xi'an Jiaotong University, P.R. China; Yaochen Li, Xi'an Jiaotong University, P.R. China; Nanning Zheng, Xi'an Jiaotong University, P.R. China;

MA.PB Monday, September 12, 10:15-12:50

Multi-Resolution Methods for Image Processing (Poster)
Room: Grand Hall 2
Chair: Rashid Ansari, University of Illinois at Chicago, USA

10:15
MA.PB.1 BLOCK-LIFTING FACTORIZATION OF M-CHANNEL BIORTHOGONAL FILTER BANKS WITH AN ARBITRARY MCMILLAN DEGREE
Taizo Suzuki, College of Engineering, Nihon University, Japan

10:15
MA.PB.2 MULTISCALE DIRECTIONAL AM-FM DEMODULATION OF IMAGES USING A 2D OPTIMIZED METHOD
Victor Murray, University of New Mexico, USA; Marios Pattichis, University of New Mexico, USA; Peter Soliz, Vision Quest Biomedical, USA

10:15
MA.PB.3 DESIGN OF Q-SHIFT FILTERS WITH IMPROVED VANISHING MOMENTS FOR DTCWT
Xi Zhang, The University of Electro-Communications, Japan

10:15
MA.PB.4 NATURAL SCENE STATISTICS OF COLOR AND RANGE
Che-Chun Su, Alan C Bovik, Lawrence Cormack, The University of Texas at Austin, USA

10:15
MA.PB.5 BIOLOGICALLY-INSPIRED OBJECT RECOGNITION SYSTEM WITH FEATURES FROM COMPLEX WAVELETS
Tao Hong, Nick Geoffrey Kingsbury, Michael D Furman, University of Cambridge, United Kingdom

10:15
MA.PB.6 MULTIPLE BLIND RE-WATERMARKING WITH QUANTISATION-BASED EMBEDDING
Jutta Hämmerle-Uhl, University of Salzburg, Austria; Christian Koidl, University of Salzburg, Austria; Andreas Uhl, Salzburg University, Austria

10:15
MA.PB.7 MULTI-RESOLUTION LEVEL SET IMAGE SEGMENTATION USING WAVELET
Fares Al-Qunaieer, Hamid R. Tizhoosh, University of Waterloo, Canada; Shahryar Rahnamayan, University of Ontario Institute of Technology (UOIT), Canada

10:15
MA.PB.8 COLOR MONOGENIC WAVELETS FOR IMAGE ANALYSIS
Raphael Soulard, University of Poitiers, France; Philippe Carré, University of Poitiers, France

10:15
MA.PB.9 AN EFFECTIVE APPROACH TO CORNER POINT DETECTION THROUGH MULTIRESOLUTION ANALYSIS
Yang Bai, University of Tennessee Knoxville, USA

(Continued on next page.)

(Continued from previous page.)

10:15
MA.PB.11 FREQUENCY GUIDED BILATERAL SYMMETRY GABOR WAVELET NETWORK
Seungkyu Lee, Samsung Advanced Institute of Technology, Korea

10:15
MA.PB.12 A SCALE-SPACE BASED HIERARCHICAL REPRESENTATION OF DISCRETE DATA
Moncef Hidane, Université de Caen Basse-Normandie, France; Olivier Lezoray, Université de Caen Basse-Normandie, France; Abderrahim Elmoataz, Université de Caen Basse-Normandi, France

MA.PC Monday, September 12, 10:15-12:50

Image Coding (Poster)
Room: Grand Hall 2
Chair: Joao Ascenso, ISEL - IT, Portugal

10:15
MA.PC.1 RANDOM PERMUTATIONS BASED BLOCK COMPRESSIVE SENSING FOR IMAGE COMPRESSION APPLICATIONS
Zhirong Gao, South-Central University for Nationalities, P.R. China

10:15
MA.PC.2 ONLINE DICTIONARIES FOR IMAGE PREDICTION
Mehmet Turkan, INRIA, France; Christine Guillemot, INRIA, France

10:15
MA.PC.3 WAVELET-BASED QUALITY CONSTRAINED COMPRESSION USING BINARY SEARCH
Yizhen Huang, AMD Inc., P.R. China

10:15
MA.PC.4 LOW-COMPLEXITY IMAGE CODER/DECODER WITH AN APPROACHING-ENTROPY QUAD-TREE SEARCH CODE FOR EMBEDDED COMPUTING PLATFORMS
Tao Ma, University of Nebraska-Lincoln, USA; Pradhumna L Shrestha, University of Nebraska-Lincoln, USA; Michael Hempel, University of Nebraska-Lincoln, USA; Dongming Peng, University Nebraska - Lincoln, USA; Hamid Sharif, University of Nebraska-Lincoln, USA;

10:15
MA.PC.5 PRESERVING SIFT FEATURES IN JPEG-ENCODED IMAGES
Jianshu Chao, Technische Universität München, Germany; Eckehard Steinbach, Munich University of Technology, Germany

10:15
MA.PC.6 VERY LOW-COMPLEXITY CODING OF IMAGES USING ADAPTIVE MODULO-PCM
Josep Prades-Nebot, Universidad Politécnica de Valencia, Spain

10:15
MA.PC.7 VISUALLY LOSSLESS JPEG2000 AT FRACTIONAL RESOLUTIONS
Han Oh, University of Arizona, USA; Ali Bilgin, ECE Dept, Michael W. Marcellin, ECE Dept, The University of Arizona, USA

10:15
MA.PC.8 JPEG XR OPTIMIZATION WITH GRAPH-BASED SOFT QUANTIZATION
Yu Gao, Simon Fraser University, Canada; Duncan Chan, Simon Fraser University, Canada; Jie Liang, Simon Fraser University, Canada

10:15
MA.PC.9 EFFICIENT WAVELET PACKET BASIS SELECTION IN JPEG2000
Thomas Stuetz, University of Salzburg, Austria; Andreas Uhl, Salzburg University, Austria

10:15
MA.PC.10 DECODER-SIDE DIMENSIONALITY DETERMINATION FOR COMPRESSIVE-PROJECTION PRINCIPAL COMPONENT ANALYSIS OF HYPERSPECTRAL DATA
Wei Li, Mississippi State University, USA; James Fowler, Mississippi State University, USA

(Continued on next page.)

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10:15
MA.PC.11 IMPROVED ENTROPY CODING FOR COMPONENT-BASED IMAGE CODING
Christian Feldmann, RWTH Aachen University, Germany; Johannes Ballé, RWTH Aachen University, Germany

10:15
MA.PC.12 3D-PMDC: A PARALLELIZED MORPHOLOGICAL WAVELET CODEC FOR 3D MEDICAL DATASETS AND TELERADIOLOGY APPLICATIONS
Alberto Signoroni, Mario Pezzoni, Riccardo Leonardi, University of Brescia, Italy

10:15
MA.PC.13 PROBABILITY INTERVAL PARTITIONING ENTROPY CODING USING SYSTEMATIC VARIABLE-TO-VARIABLE LENGTH CODES
Heiner Kirchhoffer, Fraunhofer HHI, Germany; Detlev Marpe, Fraunhofer Institute for Telecommunications - Heinrich Hertz Institute, Germany; Christian Bartnik, Fraunhofer Heinrich-Hertz-Institute, Germany; Anastasia Henkel, Fraunhofer Heinrich-Hertz-Institute, Germany; Mischa Siekmann, Fraunhofer Heinrich Hertz Institute, Germany; Jan Stegemann, Fraunhofer Heinrich-Hertz-Institute, Germany; Heiko Schwarz, Fraunhofer HHI, Germany; Thomas Wiegand, HHI/FhG, Germany;

10:15
MA.PC.14 AN ADAPTABLE SPATIAL-TEMPORAL ERROR CONCEALMENT METHOD FOR MULTIPLE DESCRIPTION CODING BASED ON ERROR TRACKING
Meilin Yang, Purdue University, USA; Mary Comer, Purdue University, USA; Ed Delp, Purdue University, USA

10:15
MA.PC.15 COUPLED DISTRIBUTED ARITHMETIC CODING
Xi Chen, University of New South Wales, Australia; David Taubman, University of New South Wales, Australia

MA.PD Monday, September 12, 10:15-12:50

Hardware and GPU Issues in Video / High Dynamic Range Imaging and Shape Estimation (Poster)
Room: Grand Hall 2
Chair: Oscar Au, HKUST, Hong Kong

10:15
MA.PD.1 CURVE-BASED AND IMAGE-BASED JND CONTRAST ANALYSIS FOR INVERSE TONE MAPPING OPERATORS
Ching-Te Chiu, National Tsing Hua University, Taiwan

10:15
MA.PD.2 HYBRID LIGHT CODING FOR FAST AND HIGH-ACCURACY SHAPE ACQUISITION
Lulu He, Northwestern University, USA; Sen Wang, Eastman Kodak Company, USA; Paul J Kane, Eastman Kodak Company, USA; Thrasyvoulos N. Pappas, Northwestern University, USA

10:15
MA.PD.3 MOTION ARTIFACT-FREE HDR IMAGING UNDER DYNAMIC ENVIRONMENTS
Sungchan Park, Hyun-Hwa Oh, Samsung Electronics, Samsung Advanced Institute of Technology, Korea; Jae-Hyun Kwon, Samsung Advanced Institute of Technology, Korea; Wonhee Choe, Samsung Electronics, Samsung Advanced Institute of Technology, Korea

10:15
MA.PD.4 GEOMETRICAL TRANSFORMATION-BASED GHOST ARTIFACTS REMOVING FOR HIGH DYNAMIC RANGE IMAGE
Jaehyun Im, Sangsik Jang, Seungwon Lee, Joonki Paik, Chung-Ang University, Korea

10:15
MA.PD.5 FULLY AUTOMATED EXPOSURE FUSION ALGORITHM FOR MOBILE PLATFORMS
Tomislav Kartalov, Faculty of Electrical Engeneering and Information Technologies - Skopje, Macedonia; Zoran Ivanovski, Ss. Cyril and Methodius University, Macedonia; Ljupcho Panovski, Faculty of Electrical Engeneering and Information Technologies - Skopje, Macedonia

10:15
MA.PD.6 FAST MOVEMENT DETECTION FOR HIGH DYNAMIC RANGE IMAGING
Zhengguo Li, Institute for Inforcomm Research, Singapore; Zijian Zhu, Institute for Infocomm Research, Singapore; Susanto Rahardja, Institute for Infocomm Research, Singapore

10:15
MA.PD.7 ONE-ROUND RENORMALIZATION BASED 2-BIN/CYCLE H.264/AVC CABAC ENCODER
Zhenyu Liu, Dongsheng Wang, Tsinghua University, P.R. China

10:15
MA.PD.8 AN EFFICIENT VLSI ARCHITECTURE FOR 4×4 INTRA PREDICTION IN THE HIGH EFFICIENCY VIDEO CODING (HEVC) STANDARD
Fu Li, Guangming Shi, Xidian University, P.R. China; Feng Wu, Microsoft Research Asia, P.R. China; Name, Affiliation, Country;

(Continued on next page.)

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10:15
MA.PD.9 ULTRA HIGH DEFINITION VIDEO DECODING WITH MOTION JPEG XR USING THE GPU
Bart Pieters, Jan De Cock, Charles Hollemeersch, Jeroen Wielandt, Peter Lambert, Rik Van de Walle, Ghent University - IBBT, Belgium;

10:15
MA.PD.10 H.264/AVC UHD DECODER IMPLEMENTATION ON MULTI-CLUSTER PLATFORM USING HYBRID PARALLELIZATION METHOD
Sangjo Lee, Samsung, Korea

10:15
MA.PD.11 A NOVEL ENERGY REDUCTION TECHNIQUE FOR H.264 INTRA MODE DECISION
Yusuf Adıbelli, Mustafa Parlak, Ilker Hamzaoglu, Sabanci University, Turkey

10:15
MA.PD.12 FAST FPGA-BASED ARCHITECTURE FOR PEDESTRIAN DETECTION BASED ON COVARIANCE MATRICES
Samuele Martelli, Diego Tosato, Marco Cristani, Vittorio Murino, University of Verona, Italy

10:15
MA.PD.13 A HIGH-THROUGHPUT PARALLEL HARDWARE ARCHITECTURE FOR H.264/AVC CAVLC ENCODING
Muhammad Shafique, Karlsruhe Institute of Technology (KIT), Germany; Adnan Tüfek, Karlsruhe Institute of Technology, Germany; Jörg Henkel, Universität karlsruhe (TH), Germany

10:15
MA.PD.14 REVC: COMPUTATIONALLY RELIABLE VIDEO CODING ON UNRELIABLE HARDWARE PLATFORMS: A CASE STUDY ON ERROR-TOLERANT H.264/AVC CAVLC ENTROPY CODING
Semeen Rehman, Muhammad Shafique, Florian Kriebel, Karlsruhe Institute of Technology, Germany; Jörg Henkel, Universität karlsruhe (TH), Germany

MA.PE Monday, September 12, 10:15-12:50

CT Image Processing Methods (Poster)
Room: Grand Hall 2
Chair: Yongyi Yang, Illinois Institute of Technology, USA

10:15
MA.PE.1 SYNTHETIC OCT DATA FOR IMAGE PROCESSING PERFORMANCE TESTING
Pedro Serranho, University of Coimbra, Portugal; Cristina Maduro, AIBILI, Portugal; Torcato Santos, AIBILI, Portugal; José Cunha-Vaz, IBILI, Fac. Medicine, University Coimbra, Portugal; Rui Bernardes, Inst. Biophysics & Biomathematics, IBILI, Fac. Medicine, University Coimbra, Portugal

10:15
MA.PE.2 A COMPARATIVE EVALUATION OF RING ARTIFACTS REDUCTION FILTERS FOR X-RAY COMPUTED MICROTOMOGRAPHY IMAGES
Francesco Brun, University of Trieste, Italy; Georgios Kourousias, Sincrotrone Trieste S.C.p.A, Italy; Dreossi Diego, Sincrotrone Trieste S.C.p.A., Italy; Lucia Mancini, Sincrotrone Trieste S.C.p.A., Italy; Giuliana Tromba, Sincrotrone Trieste S. C. p. A., Italy

10:15
MA.PE.3 A NOVEL ALTERNATIVE ALGORITHM FOR LIMITED ANGLE TOMOGRAPHY
Xiaoqiang Lu, Chinese Academy of Sciences, P.R. China; Yuan Yuan, Chinese Academy of Sciences, P.R. China; Pingkun Yan, Chinese Academy of Sciences, P.R. China; Xuelong Li, Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences, P.R. China

10:15
MA.PE.4 A NOVEL COUPLED TRANSMISSION-REFLECTION TOMOGRAPHY AND THE V-LINE RADON TRANSFORM
Rémi Régnier, ETIS/ENSEA/CNRS/University of Cergy-Pontoise, France; Maï Nguyen-Verger, University of Cergy-Pontoise, France

10:15
MA.PE.5 PET IMAGE RECONSTRUCTION: GPU-ACCELERATED PARTICLE FILTER FRAMEWORK
Fengchao Yu, Zhejiang University, P.R. China; Huafeng Liu, Zhejiang University, P.R. China; Pengcheng Shi, Affiliation, USA

10:15
MA.PE.6 SENSITIVITY TO ERROR OF THE TRUNCATED HILBERT TRANSFORM TECHNIQUE FOR INTERIOR RECONSTRUCTION
Alex Opie, University of Canterbury, New Zealand; Phil Bones, University of Canterbury, New Zealand

10:15
MA.PE.7 INTERACTIVE CT IMAGE SEGMENTATION WITH ONLINE DISCRIMINATIVE LEARNING
Wei Yang, Sun Yat-Sen University, P.R. China; Xiaolong Wang, Sun Yat-Sen University, P.R. China; Liang Lin, Sun Yat-Sen University, P.R. China; Chengying Gao, Sun Yat-Sen University, P.R. China;

10:15
MA.PE.8 AN ALGORITHM FOR SIMULTANEOUS IMAGE SEGMENTATION AND NONRIGID REGISTRATION, WITH CLINICAL APPLICATION IN IMAGE GUIDED RADIOTHERAPY
Chao Lu, Yale University, USA; Jingjing Zhu, Yale University, USA; James Duncan, Yale University, USA

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10:15
MA.PE.9 INTEGRATED FRAMEWORK FOR SIMULTANEOUS SEGMENTATION AND REGISTRATION OF CARPAL BONES
Xin Chen, Jim Graham, The University of Manchester, United Kingdom; Charles Hutchinson, University of Warwick, United Kingdom

10:15
MA.PE.10 AUTOMATED DELINEATION OF TREE-RINGS IN X-RAY COMPUTED TOMOGRAPHY IMAGES OF WOOD
Philippe Borianne, Umr Amap, France; Gerard Subsol, Lirmm, France

10:15
MA.PE.11 MULTISCALE SPARSE REPRESENTATION OF HIGH-RESOLUTION COMPUTED TOMOGRAPHY (HRCT) LUNG IMAGES FOR DIFFUSE LUNG DISEASE CLASSIFICATION
Kiet T. Vo, University of New South Wales, Australia

10:15
MA.PE.12 MODELING A PARALLELISM CONSTRAINT IN ACTIVE CONTOURS. APPLICATION TO THE SEGMENTATION OF EYE VESSELS AND RETINAL LAYERS
Itebeddine Ghorbel, Télécom ParisTech, France; Florence Rossant, ISEP, France; Isabelle Bloch, Télécom ParisTech, France; Michel Paques, Clinical Investigation Center 503, France; Name, Affiliation, Country;

10:15
MA.PE.13 SPARSITY-BASED RETINAL LAYER SEGMENTATION OF OPTICAL COHERENCE TOMOGRAPHY IMAGES
Jason Tokayer, University of Southern California, USA; Antonio Ortega, USC, USA; David Huang, Oregon Health and Sciences University, USA

10:15
MA.PE.14 DIRECT RECONSTRUCTION OF PARAMETRIC IMAGES FROM CARDIAC GATED DYNAMIC SPECT DATA
Xiaofeng Niu, Illinois Institute of Technology, USA; Yongyi Yang, Illinois Institute of Technology, USA; Miles Wernick, IIT, USA

10:15
MA.PE.15 EFFECTS OF PIECEWISE SMOOTHING ON CARDIAC SPECT RECONSTRUCTION
Wenyuan Qi, Xiaofeng Niu, Yongyi Yang, Illinois Institute of Technology, USA

10:15
MA.PE.16 A NEW 3D PARADIGM FOR METAL ARTIFACT REDUCTION IN DENTAL CT
Valery Naranjo, Roberto Lloréns, Mariano Alcañiz, Universidad Politécnica de Valencia, Spain; Rafael Verdú-Monedero, Universidad Politécnica de Cartagena, Spain; Jorge Larrey-Ruiz, Juan Morales-Sánchez, Universidad Politécnica de Cartagena, Spain;

MA.PF Monday, September 12, 10:15-12:50

Tracking (Poster)
Room: Grand Hall 2
Chair: R. (Inald) L. Lagendijk, Delft University of Technology, The Netherlands

10:15
MA.PF.1 AN IMPROVED OCCLUSION HANDLING FOR APPEARANCE-BASED TRACKING
Gwo-Cheng Chao, Shyh-Kang Jeng, National Taiwan University, Taiwan; Shung-Shing Lee, Ching Yun University, Taiwan

10:15
MA.PF.2 A SNAKE ALGORITHM FOR AUTOMATICALLY TRACKING MULTIPLE OBJECTS
Hua Fang, PAICHAI University, Korea; Shin-Hyoung Kim, AR VISION Inc., Korea; Jong Whan Jang, PAICHAI University, Korea

10:15
MA.PF.3 MEAN-SHIFT TRACKING ALGORITHM WITH WEIGHT FU SION STRATEGY
Lingfeng Wang, National Laboratory of Pattern Recognition, P.R. China; Chunhong Pan, Shiming Xiang, Institute of Automation, Chinese Academy of Sciences, P.R. China

10:15
MA.PF.4 COMPLEMENTARY VISUAL TRACKING
Shu Wang, Dalian University of Technology, P.R. China; Huchuan LU, Dalian University of Technology, P.R. China; Guang Yang, Dong Cai Science and Technology, P.R. China

10:15
MA.PF.5 A COST FUNCTION APPROACH FOR MULTI-HUMAN TRACKING
Yuan Shen, Beijing Jiaotong University, P.R. China; Zhenjiang Miao, Zhifei Wang, Institute of Information Science, Beijing Jiaotong University, P.R. China

10:15
MA.PF.6 ROBUST VISUAL TRACKING VIA TRANSFER LEARNING
Wenhan Luo, National Lab of Pattern Recognition, Institute of Automation, CAS, P.R. China; Xi Li, University of Adelaide, Australia; Wei Li, National Lab of Pattern Recognition, Institute of Automation, CAS, P.R. China; Weiming Hu, CAS, P.R. China;

10:15
MA.PF.7 VISUAL TRACKING USING COMPENSATED MOTION MODEL FOR MOBILE CAMERAS
Jian-Yi Lu, Evest Corp., Taiwan; Yi-Chun Wei, National Central University, Taiwan; Chih-Wei Tang, National Central University, Taiwan

10:15
MA.PF.8 REGION TRACKING WITH NARROW PERCEPTION OF BACK GROUND
Julien Mille, Université de Lyon, LIRIS, France; Jean-Loïc Rose, Université de LYON, CNRS, France

10:15
MA.PF.9 ADAPTIVE MULTI-RESOLUTION CRF-BASED CONTOUR TRACKING
Fatemeh Moayedi, University of Shiraz, Iran; Zohreh Azimifar, Shiraz University, Iran; Paul Fieguth, University of Waterloo, Canada; Alireza Kazemi, University of Shiraz, Iran

(Continued on next page.)

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10:15
MA.PF.10 MONTE CARLO SAMPLING FOR VISUAL POSE TRACKING
Jehoon Lee, Georgia Institute of Technology, USA; Romeil Sandhu, Georgia Institute of Technology, USA; Allen Tannenbaum, Georgia Institute of Technology, USA

10:15
MA.PF.11 SNOOPERTRACK: TEXT DETECTION AND TRACKING FOR OUTDOOR VIDEOS
Rodrigo Minetto, University of Campinas, Brazil; Nicolas Thome, University Pierre et Marie Curie, France; Matthieu Cord, UPMC Paris 6, France; Neucimar Leite, State University of Campinas, Brazil; Jorge Stolfi, University of Campinas, Brazil;

10:15
MA.PF.12 ROBUST VISUAL TRACKING VIA CONTEXT OBJECTS COMPUTING
Zhongqian Sun, Harbin Institute of Technology, P.R. China; Hongxun Yao, Harbin Institute of Technology, P.R. China; Shengping Zhang, Harbin Institute of Technology, P.R. China; Xin Sun, Harbin Institute of Technology, P.R. China

10:15
MA.PF.13 PARTICLE-BASED TRACKING MODEL FOR AUTOMATIC ANOMALY DETECTION
Erwan Jouneau, Multitel, Belgium; Cyril Carincotte, Multitel, Belgium

10:15
MA.PF.14 ROBUST VISUAL TRACKING VIA RANKING SVM
Yancheng Bai, National Lab of Pattern Recognition, Institute of Automation, Chinese Academy of Sciences, P.R. China; Ming Tang, Chinese Academy of Sciences, P.R. China

10:15
MA.PF.16 VANISHING POINT-BASED LINE SAMPLING FOR EFFICIENT AXIS-BASED PEOPLE LOCALIZATION
Kuo-Hua Lo, National Chiao Tung University, Taiwan; Jen-Hui Chuang, National Chiao Tung University, Taiwan

MA.PG Monday, September 12, 10:15-12:50

Preprocessing and Features for Biometrics (Poster)
Room: Grand Hall 2
Chair: Jian Zhang, The University of New South Wales, Australia

10:15
MA.PG.1 A MARKERLESS MOTION CAPTURE SYSTEM WITH AUTOMATIC SUBJECT-SPECIFIC BODY MODEL ACQUISITION AND ROBUST POSE TRACKING FROM 3D DATA
Zheng Zhang, Nanyang Technological University, Singapore; Seah Hock Soon, Nanyang Technological University, Singapore; Chee Kwang Quah, Nanyang Technological University, Singapore; Jixiang Sun, National University of Defense Technology, Singapore

10:15
MA.PG.2 ROBUST BODY PARTS TRACKING USING PARTICLE FILTER AND DYNAMIC TEMPLATE
Matilde Gonzalez, Université Paul Sabatier, France; Christophe Collet, Université Paul Sabatier, France

10:15
MA.PG.4 ACTION RECOGNITION USING PARTIAL LEAST SQUARES AND SUPPORT VECTOR MACHINES
Samah Ramadan, University Of Maryland, USA; Larry S Davis, University of Maryland, USA

10:15
MA.PG.5 AUGMENTED FINGERPRINT MINUTIAE VICINITY
Bian Yang, Gjøvik University College, Norway; Christoph Busch, Gjøvik University College, Norway

10:15
MA.PG.6 MULTI-VIEW MULTI-STANCE GAIT IDENTIFICATION
Maodi Hu, Beihang University, P.R. China; Yunhong Wang, Beihang University, P.R. China; Zhaoxiang Zhang, Beihang University, P.R. China; De Zhang, Beihang University, P.R. China

10:15
MA.PG.7 SPEED-INVARIANT GAIT RECOGNITION BASED ON PROCRUSTES SHAPE ANALYSIS USING HIGHER-ORDER SHAPE CONFIGURATION
Worapan Kusakunniran, University of New South Wales, Australia; Qiang Wu, University of Technology, Sydney, Australia; Jian Zhang, The University of New South Wales, Australia; Hongdong Li, Australian National University, Australia;

10:15
MA.PG.8 HYBRID HAND TRACKING SYSTEM
Jing-Ming Guo, National Taiwan University of Science and Technology, Taiwan

10:15
MA.PG.9 EXPLOITING COLOR SIFT FEATURES FOR 2D EAR RECOGNITION
Jindan Zhou, University of Miami, USA; Steven Cadavid, University of Miami, USA; Mohamed Abdel-Mottaleb, University of Miami, USA

10:15
MA.PG.10 GPU-BASED FACE TRACKING AT 500 FPS
Idaku Ishii, Hiroshima University, Japan; HIroki Ichida, Hiroshima University, Japan; Takeshi Takaki, Hiroshima University, Japan

(Continued on next page.)

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10:15
MA.PG.11 A COMPARISON OF TECHNIQUES FOR ROBUST GENDER RECOGNITION
Richard Rojas-Bello, Luis Lago-Fernández, Gonzalo Martínez-Muñoz, Manuel Sánchez-Montañés, Universidad Autónoma de Madrid, Spain

10:15
MA.PG.12 MULTI-TASK GLOH FEATURE SELECTION FOR HUMAN AGE ESTIMATION
Yixiong Liang, LIngbo Liu, Ying Xu, Yao Xiang, Beiji Zou, Central South University, P.R. China

10:15
MA.PG.13 POSE INVARIANT FACIAL COMPONENT LANDMARK DETECTION
Boris Efraty, University of Houston, USA; Manos Papadakis, TLC2, USA; Adam Profitt, TLC2, USA; Shishir Shah, University of Houston, USA; Ioannis Kakadiaris, University of Houston, USA

10:15
MA.PG.14 SPATIAL AND PROBABILISTIC CODEBOOK TEMPLATE BASED HEAD POSE ESTIMATION FROM UNCONSTRAINED ENVIRONMENTS
Meltem Demirkus, Mcgill University, Canada; Boris N Oreshkin, Mcgill University, Canada; James Clark, McGill University, Canada; Tal Arbel, McGill, Canada

10:15
MA.PG.15 NEWTON OPTIMIZATION BASED CONGEALING FOR FACIAL IMAGE ALIGNMENT
Weiyuan Ni, Grenoble University, France; Alice Caplier, Institut National Polytechnique de Grenoble, France

MP.L1 Monday, September 12, 14:20-17:35

Compression of High-Dimensional Media Data for Interactive Navigation (Special Session)
Room: Silver Hall
Co-Chairs: Gene Cheung, National Institute of Informatics, Japan
Vladan Velisavljevic, Deutsche Telekom Laboratories, Germany

14:20
MP.L1.1 EFFICIENT COMMUNICATION OF VIDEO USING METADATA
Aous T. Naman, University of New South Wales, Australia; Duncan Edwards, University of New South Wales, Australia; David Taubman, University of New South Wales, Australia

14:40
MP.L1.2 MAPPING DATA ON A ROTATED GRID IN HIGH-DIMENSIONS FOR LOSSLESS COMPRESSION
Zihong Fan, University of Southern California, USA; Antonio Ortega, USC, USA

15:00
MP.L1.3 INTERACTIVE MULTIVIEW VIDEO SYSTEM WITH LOW DECODING COMPLEXITY
Thomas Maugey, Ecole Polytechnique Fédérale de Lausanne, Switzerland; Pascal Frossard, Swiss Federal Institute of Technology - EPFL, Switzerland

15:20
MP.L1.4 FRAME STRUCTURE OPTIMIZATION FOR INTERACTIVE MULTIVIEW VIDEO STREAMING WITH BOUNDED NET WORK DELAY
Xiaoyu Xiu, Simon Fraser University, Canada; Gene Cheung, National Institute of Informatics, Japan; Jie Liang, Simon Fraser University, Canada

16:15
MP.L1.5 USING DISTRIBUTED SOURCE CODING AND DEPTH IMAGE BASED RENDERING TO IMPROVE INTERACTIVE MULTIVIEW VIDEO ACCESS
Giovanni Petrazzuoli, Télécom ParisTech, France; Marco Cagnazzo, TELECOM ParisTech, France; Frederic Dufaux, Telecom Paristech, France; Beatrice Pesquet-Popescu, Télécom ParisTech, France

16:35
MP.L1.6 INTERACTIVE MULTIVIEW IMAGE CODING
Andriy Gelman, Imperial College London, United Kingdom; Pier Luigi Dragotti, Imperial College London, United Kingdom; Vladan Velisavljevic, Deutsche Telekom Laboratories, Germany

16:55
MP.L1.7 A TRELLIS-BASED APPROACH FOR ROBUST VIEW SYNTHESIS
Dong Tian, Mitsubishi Electric Research Labs, USA; Anthony Vetro, Mitsubishi Electic Research Laboratories, USA; Matthew Brand, MERL, USA

17:15
MP.L1.8 ADAPTIVE PIXEL/PATCH-BASED SYNTHESIS FOR TEXTURE COMPRESSION
Fabien Racape, Technicolor Research & Innovation, France; Simon Lefort, Technicolor Research & Innovation, France; Edouard Francois, Technicolor, France; Marie Babel, IETR / INSA Rennes, France; Olivier Deforges, IETR / INSA Rennes, France

MP.L2 Monday, September 12, 14:20-17:35

Image & Video Sensing (Lecture)
Room: 211/212
Chair: Homer Chen, National Taiwan University, Taiwan

14:20
MP.L2.1 SINGLE IMAGE LOCAL BLUR IDENTIFICATION
Pauline Trouvé, Onera, France; Frédéric Champagnat, ONERA, France; Guy Le Besnerais, ONERA, France; Jérôme Idier, IRCCyN, France

14:40
MP.L2.2 LENS DISTORTION CORRECTION WITH A CALIBRATION HARP
Rafael Grompone von Gioi, CMLA, ENS-Cachan, France; Pascal Monasse, IMAGINE, LIGM-Universite Paris Est, France; Jean-Michel Morel, CMLA, ENS-Cachan, France; Zhongwei Tang, CMLA, ENS-Cachan, France

15:00
MP.L2.3 EFFECTIVE AUTOFOCUS DECISION USING RECIPROCAL FOCUS PROFILE
Dong-Chen Tsai, National Taiwan University, Taiwan; Homer Chen, National Taiwan University, Taiwan

15:20
MP.L2.4 AUTOMATIC VIDEO DESHEARING FOR SKEW SEQUENCES CAPTURED BY ROLLING SHUTTER CAMERAS
Dung Vo, Samsung Information Systems America (Samsung Electronics US R&D Center), USA; Surapong Lertrattanapanich, Digital Media Solutions Lab, Samsung Electronics US R&D Center, USA; Yeong-Taeg Kim, Samsung SISA, USA

16:15
MP.L2.5 ROBUST VIDEO STABILIZATION APPROACH BASED ON A VOTING STRATEGY
Giovanni Puglisi, University of Catania, Italy; Sebastiano Battiato, University of Catania, Italy

16:35
MP.L2.6 AN AUTO-FOCUS SHARPNESS FUNCTION FOR STEREO IMAGE PAIRS
Mohammad Rahman, University of Texas at Dallas, USA; Nasser Kehtarnavaz, University of Texas at Dallas, USA; Siamak Yousefi, University of Texas at Dallas, USA

16:55
MP.L2.7 CALIBRATION OF CENTRAL CATADIOPTRIC CAMERA WITH ONE-DIMENSIONAL OBJECT UNDERTAKING GENERAL MOTIONS
Xiaoming Deng, Institute of Software, Chinese Academy of Sciences, P.R. China; Fuchao Wu, NLPR, P.R. China; Yihong Wu, Chinese Academy of Sciences, P.R. China; Liang Chang, Beijing Normal University, P.R. China; Wei Liu, ISCAS, P.R. China; Hongan Wang, Chinese Academy of Sciences, P.R. China;

17:15
MP.L2.8 PARACATADIOPTRIC CAMERA CALIBRATION USING SPHERE IMAGES
Huixian Duan, Chinese Academy of Sciences, P.R. China; Yihong Wu, Chinese Academy of Sciences, P.R. China

MP.L3 Monday, September 12, 14:20-17:35

Saliency and Object Recognition (Lecture)
Room: 214/216
Chair: Riccardo Leonardi, University of Brescia, Italy

14:20
MP.L3.1 VISUAL SALIENCY DETECTION BASED ON BAYESIAN MODEL
Yulin Xie, Dalian University of Technology, P.R. China; Huchuan LU, Dalian University of Technology, P.R. China

14:40
MP.L3.2 HIGH RESOLUTION BIOLOGICALLY INSPIRED SALIENT REGION DETECTION
Yusuf Saber, Ryerson University, Canada; Matthew J Kyan, Ryerson University, Canada

15:00
MP.L3.3 SIMULTANEOUS DETECTION AND SEGMENTATION FOR GENERIC OBJECTS
Albert Torrent, University of Girona, Spain; Xavier Lladó, University of Girona, Spain; Jordi Freixenet, University of Girona, USA; Antonio Torralba, Massachusetts Institute of Technology, USA

15:20
MP.L3.4 SPARSE REPRESENTATION BASED VISUAL ELEMENT ANALYSIS
Xue Li, Hongxun Yao, Xiaoshuai Sun, Harbin Institute of Technology, P.R. China; Rongrong Ji, Columbia University, P.R. China; Xianming Liu, Harbin Institute of Technology, P.R. China; Pengfei Xu, Harbin Institute of Technology, P.R. China;

16:15
MP.L3.5 SPATIAL COORDINATE CODING TO REDUCE HISTOGRAM REPRESENTATIONS, DOMINANT ANGLE AND COLOUR PYRAMID MATCH
Piotr Koniusz, University of Surrey, United Kingdom; Krystian Mikolajczyk, University of Surrey, United Kingdom

16:35
MP.L3.6 MULTIVARIATE LOG-GAUSSIAN COX MODELS OF ELEMENTARY SHAPES FOR RECOGNIZING NATURAL SCENE CATEGORIES
Nguyen Huu-Giao, Institut Telecom / Telecom Bretagne / Labsticc, France

16:55
MP.L3.7 IMPROVING IMAGE SIMILARITY WITH VECTORS OF LOCALLY AGGREGATED TENSORS
David Picard, ETIS - ENSEA, France; Philippe H Gosselin, CNRS, ENSEA, UniversityCergy-Pontoise, France

17:15
MP.L3.8 RECOGNIZING 3D OBJECTS IN CLUTTERED SCENES USING PROJECTION IMAGES
Dimitrios Zarpalas, Informatics and Telematics Institute, Greece; Georgios Kordelas, Informatics and Telematics Institute, Greece; Petros Daras, Informatics & Telematics Institute, Greece

MP.L4 Monday, September 12, 14:20-17:35

Image Restoration (Lecture)
Room: 213/215
Chair: Jorge S. Marques, Instituto Superior Técnico, Portugal

14:20
MP.L4.1 SINGLE IMAGE SPATIALLY VARIANT OUT-OF-FOCUS BLUR REMOVAL
Stanley Chan, University of California, San Diego, USA; Truong Nguyen, University of California in San Diego, USA

14:40
MP.L4.2 PATCH-BASED IMAGE DECONVOLUTION VIA JOINT MODELING OF SPARSE PRIORS
Chao Jia, The University of Texas at Austin, USA; Brian L Evans, The University of Texas at Austin, USA

15:00
MP.L4.3 VARIATIONAL IMAGE RESTORATION BASED ON POISSON SINGULAR INTEGRAL AND CURVELET-TYPE DECOMPOSITION SPACE REGULARIZATION
Huang Li, Zhi Wei, Zhang Rong, Nanjing University of Science and Technology, P.R. China

15:20
MP.L4.4 TWO CONSTRAINED FORMULATIONS FOR DEBLURRING POISSON NOISY IMAGES
Mikael Carlavan, INRIA, France; Laure Blanc-Féraud, CNRS, France

16:15
MP.L4.5 A CONVEX MINIMIZATION MODEL IN IMAGE RESTORATION VIA ONE-DIMENSIONAL SOBOLEV NORM PROFILES
Yunho Kim, University of California Irvine, USA; John Garnett, University of California Los Angeles, USA; Luminita Vese, University of California, Los Angeles, USA

16:35
MP.L4.6 ADAPTIVE REGULARIZATION FOR MULTIPLE IMAGE RESTORATION USING AN EXTENDED TOTAL VARIATIONS APPROACH
Matthew A. Kitchener, University of Wollongong, Australia; Abdesselam Bouzerdoum, University of Wollongong, Australia; Son Lam Phung, University of Wollongong, Australia

16:55
MP.L4.7 A NEW IMAGE DEBLURRING ALGORITHM WITH LESS RINGING ARTIFACTS VIA ERROR VARIANCE ESTIMATION AND SOFT DECISION
Ruiqin Xiong, Peking University, P.R. China

17:15
MP.L4.8 A SECOND-ORDER EXTENSION OF TV REGULARIZATION FOR IMAGE DEBLURRING
Zafer Dogan, Swiss Institute of Technology, Lausanne, Switzerland; Stamatios Lefkimmiatis, Ecole Polytechnique Federale de Lausanne, Switzerland; Aurélien Bourquard, Ecole Polytechnique Federale de Lausanne, Switzerland; Michael Unser, EPFL, Switzerland

MP.L5 Monday, September 12, 14:20-17:35

Best Student Paper Award Session (Lecture)
Room: The Arc
Co-Chairs: Pascal Frossard, Swiss Federal Institute of Technology - EPFL, Switzerland
Béatrice Pesquet, Ecole Nationale Supérieure des Télécommunications, France

14:20
MP.L5.1 2 D TO 3D CONVERSION OF SPORTS CONTENT USING PANORAMAS
Lars Schnyder, Oliver Wang, Aljoscha Smolic, Disney Research Zurich, Switzerland

14.40
MP.L5.2 COUNTERING JPEG ANTI-FORENSICS
Giuseppe Valenzise, Vitaliano Nobile, Marco Tagliasacchi, Stefano Tubaro, Politecnico di Milano, Italy

15:00
MP.L5.3 ONLINE DICTIONARIES FOR IMAGE PREDICTION
Mehmet Turkan, INRIA, France; Christine Guillemot, INRIA, France

15:20
MP.L5.4 CONVEX APPROACHES TO MODEL WAVELET SPARSITY PATTERNS
Nikhil Rao, Rob Nowak, University of Wisconsin, Madison, USA; Stephen J Wright, University of Wisconsin, USA; Nick Geoffrey Kingsbury, University of Cambridge, United Kingdom

16:15
MP.L5.5 VIDEO ENCOD ER BASED ON LIFTING TRA NSFORMS ON GRAPHS
Eduardo Martinez-Enriquez, Fernando Diaz-de-Maria, Unversidad Carlos III de Madrid, Spain; Antonio Ortega, USC, USA

16:35
MP.L5.6 SALIENT COVARIA NCE FOR NEAR-DUPLICATE IMAGE AND VIDEO DETECTION
Ligang Zheng, Sun Yat-sen University, P.R. China; Guoping Qiu, University of Nottingham, United Kingdom; Jiwu Huang, Sun Yat-sen University, P.R. China; Hao Fu, University of Nottingham, United Kingdom

16:55
MP.L5.7 COSINE INTEGRAL IMAGES FOR FAST SPATIAL AND RANGE FILTERING
Elhanan Elboher, The Hebrew University of Jerusalem, Israel; Michael Werman, Hebrew University of Jerusalem, Israel

17:15
MP.L5.8 PATCH -BASED LOCALLY OPTIMAL DENOISING
Priyam Chatterjee, Peyman Milanfar, University of California, Santa Cruz, USA

MP.L6 Monday, September 12, 14:20-17:15

Biomedical Image Shape Segmentation (Lecture)
Room: Hall 300
Chair: David Dagan Feng, University of Sydney, Australia

14:20
MP.L6.1 LEARNING-BASED NON-RIGID IMAGE REGISTRATION USING PRIOR JOINT INTENSITY DISTRIBUTIONS WITH GRAPH-CUTS
Ronald W. K. So, Albert C. S. Chung, The Hong Kong University of Science and Technology, Hong Kong

14:40
MP.L6.2 PUTTING IMAGES ON A MANIFOLD FOR ATLAS-BASED IMAGE SEGMENTATION
Yihui Cao, Chinese Academy of Sciences, P.R. China; Xuelong Li, Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences, P.R. China; Yuan Yuan, Pingkun Yan, Chinese Academy of Sciences, P.R. China

15:00
MP.L6.3 A PROBABILISTIC FRAMEWORK FOR AUTOMATIC PROSTATE SEGMENTATION WITH A STATISTICAL MODEL OF SHAPE AND APPEARANCE
Soumya Ghose, Université de Bourgogne, France; Arnau Oliver, Robert Marti, Xavier Lladó, University of Girona, Spain; Jordi Freixenet, University of Girona, USA; Joan Vilanova, Clinica Girona, Spain; Fabrice Meriaudeau, University of Bourgogne, France;

15:20
MP.L6.4 A NEW SHAPE BASED SEGMENTATION FRAMEWORK USING STATISTICAL AND VARIATIONAL METHODS
Melih Aslan, CVIP Lab, University of Louisville, USA; Hossam Abdelmunim, Faculty of Engineering, Ain Shams University, Egypt ; Aly Farag, University of Louisville, USA; Ben Arnold, Image Analysis, Inc., USA; Eslam Mostafa, University of Louisville, USA; Ping Xiang, Image Analysis, Inc., USA;

16:15
MP.L6.5 SEGMENTING HUMAN KNEE CARTILAGE AUTOMATICALLY FROM MULTI-CONTRAST MR IMAGES USING SUPPORT VECTOR MACHINES AND DISCRIMINATIVE RANDOM FIELDS
Kunlei Zhang, Jun Deng, Lu Wenmiao, Nanyang Technological University, Singapore

16:35
MP.L6.6 A FUZZY FRAMEWORK WITH PRIOR INFORMATION UNIFYING REGISTRATION, SEGMENTATION, AND BIAS FIELD CORRECTION OF BRAIN MRI
Moumen El-Melegy, Assiut University, Egypt; Aly Farag, University of Louisville, USA

16:55
MP.L6.7 ELASTIC SHAPE REGISTRATION USING AN INCREMENTAL FREE FORM DEFORMATION APPROACH WITH THE ICP ALGORITHM
Hossam Abdelmunim, Faculty of Engineering, Ain Shams University, Egypt; Aly Farag, University of Louisville, USA

MP.L7 Monday, September 12, 14:20-17:15

Reduced-Complexity Video Coding (Lecture)
Room: 311/312
Chair: Andrew Segall, Sharp Labs, USA

14:20
MP.L7.2 HEVC ALF DECODE COMPLEXITY ANALYSIS AND REDUCTION
Madhukar Budagavi, Texas Instruments, USA; Vivienne Sze, Texas Instruments, USA; Minhua Zhou, Texas Instruments, USA

14:40
MP.L7.3 LOW COMPLEXITY DEBLOCKING FILTER PERCEPTUAL OPTIMIZATION FOR THE HEVC CODEC
Matteo Naccari, Instituto de Telecomunicações, Portugal; Catarina Brites, IST - IT, Portugal; Joao Ascenso, ISEL - IT, Portugal; Fernando Pereira, IST-IT, Portugal

15:00
MP.L7.4 COMPLEXITY-AWARE ADAPTIVE SPATIAL PRE-PROCESSING FOR ROI SCALABLE VIDEO CODING WITH DYNAMIC TRANSITION REGION
Dan Grois, Ofer Hadar, Ben-Gurion University of the Negev, Israel

15:20
MP.L7.5 VIDEO COMPRESSION COMPLEXITY REDUCTION WITH ADAPTIVE DOWN-SAMPLING
Diogo Garcia, Tiago da Fonseca, Ricardo de Queiroz, University of Brasil, Brazil

16:15
MP.L7.6 A MULTI-LEVEL DYNAMIC COMPLEXITY REDUCTION SCHEME FOR MULTIVIEW VIDEO CODING
Bruno Zatt, Federal University of Rio Grande do Sul, Brazil; Muhammad Shafique, Karlsruhe Institute of Technology (KIT), Germany; Sergio Bampi, Federal University of Rio Grande do Sul, Brazil; Jörg Henkel, Universität karlsruhe (TH), Germany

16:35
MP.L7.7 REDUCED-COMPLEXITY ENTROPY CODING OF TRANSFORM COEFFICIENT LEVELS USING TRUNCATED GOLOMB-RICE CODES IN VIDEO COMPRESSION
Tung Nguyen, Fraunhofer HHI, Germany; Detlev Marpe, Fraunhofer Institute for Telecommunications - Heinrich Hertz Institute, Germany; Heiko Schwarz, Fraunhofer HHI, Germany; Thomas Wiegand, Fraunhofer Institute for Telecommunications - Heinrich-Hertz-Institute, Germany;

16:55
MP.L7.8 FRAME BUFFER COMPRESSION FOR LOW-POWER VIDEO CODING
Zhan Ma, Samsung Telecommunications America, USA; Andrew Segall, Sharp Labs, USA

MP.L8 Monday, September 12, 14:20-17:35

Face Recognition (Lecture)
Room: 314/316
Chair: Alberto Albiol, Universidad Politecnica de Valencia, Spain

14:20
MP.L8.1 LOCALITY-CONSTRAINED GROUP SPARSE REPRESENTATION FOR ROBUST FACE RECOGNITION
Yu-Wei Chao, Academia Sinica, Taiwan; Yi-Ren Yeh, Research Center for Information Technology Innovation, Academia Sinica, Taipei, Taiwan; Yu-Wen Chen, National Taiwan University, Taiwan; Yuh-Jye Lee, National Taiwan University of Science and Technology, Taiwan; Yu-Chiang Frank Wang, Academia Sinica, Taiwan

14:40
MP.L8.2 FACE RECOGNITION USING MULTI-SCALE LOCAL PHASE QUANTISATION AND LINEAR REGRESSION CLASSIFIER
Muhammad Atif Tahir, Chan Ho, Josef Kittler, University of Surrey, United Kingdom; Ahmed Bouridane, Northumbria University, United Kingdom

15:00
MP.L8.3 MAP-MRF BASED LIP SEGMENTATION WITHOUT TRUE SEGMENT NUMBER
Yiu-ming Cheung, Hong Kong Baptist University, Hong Kong; Meng Li, Hong Kong Baptist University, Hong Kong

15:20
MP.L8.4 3D FACIAL EXPRESSION RECOGNITION USING ZERNIKE MOMENTS ON DEPTH IMAGES
Nicholas Vretos, Aristotle University of Thessaloniki, Greece; Nikos Nikolaidis, Aristotle University of Thessaloniki, Greece; Ioannis Pitas, Aristotle University of Thessaloniki, Greece

16:15
MP.L8.5 ILLUMINATION ROBUST DICTIONARY-BASED FACE RECOGNITION
Vishal Patel, Tao Wu, University of Maryland, USA; Soma Biswas, University of Notre Dame, USA; P. Jonathon Phillips, NIST, USA; Rama Chellappa, University of Maryland, USA;

16:35
MP.L8.6 FACE TRACKING IN LOW RESOLUTION VIDEOS UNDER ILLUMINATION VARIATIONS
Wilman W.W. Zou, Hong Kong Baptist University, Hong Kong; Rama Chellappa, University of Maryland, USA; Pong C Yuen, Hong Kong Baptist University, Hong Kong

16:55
MP.L8.7 COLOR HOG-EBGM FOR FACE RECOGNITION
David Monzo, Alberto Albiol, Antonio Albiol, Universidad Politecnica Valencia, Spain; Jose M. Mossi, Polytechnic University of Valencia, Spain

17:15
MP.L8.8 FEATURE SELECTION VIA SIMULTANEOUS SPARSE APPROXIMATION FOR PERSON SPECIFIC FACE VERIFICATION
Yixiong Liang, Lei Wang, Shenghui Liao, Beiji Zou, Central South University, P.R. China

MP.PA Monday, September 12, 14:20-17:35

Geometry Texture and Object-based Representation (Poster)
Room: Grand Hall 2
Chair: Trac D. Tran, Johns Hopkins University, USA

14:20
MP.PA.1 TENSOR-DIRECTED SIMULATION OF STROKES FOR IMAGE STYLIZATION WITH HATCHING AND CONTOURS
David Tschumperlé, Laboratoire GREYC (CNRS UMR 6072), France

14:20
MP.PA.2 PATTERN RECOGNITION BY AFFINE LEGENDRE MOMENT INVARIANTS
Hui Zhang, University of Windsor, Canada; Jonathan Wu, University of Windsor, Canada

14:20
MP.PA.3 SPATIOGRAM FEATURES TO CHARACTERIZE PEARLS IN PAINTINGS
Ljiljana Platiša, Ghent University, Belgium; Bruno Cornelis, Vrije Universiteit Brussel, Belgium; Tijana Ružic, Ghent University, Belgium; Aleksandra Pižurica, Ghent University, Belgium; Ann Dooms, Vrije Universiteit Brussel, Belgium; Maximiliaan Martens, Ghent University, Belgium; Marc De Mey, The Flemish Academic Centre for Science and the Arts, Belgium; Ingrid Daubechies, Princeton University, USA;

14:20
MP.PA.4 ANISOTROPIC AND SPATIO-TEMPORAL EXTENSION OF COLOR ETV BASED DECOMPOSITION MODEL
Mathieu Lugiez, University of La Rochelle, France; Abdallah El Hamidi, University of La Rochelle, France; Michel Menard, University of La Rochelle, France

14:20
MP.PA.5 MPL-BOOSTED INTEGRABLE FEATURES POOL FOR PEDESTRIAN DETECTION
Junqiang Wang, Huadong Ma, Beijing University of Posts and Telecommunications, P.R. China

14:20
MP.PA.6 A COMBINED TEXTURE-SHAPE DESCRIPTOR FOR ENHANCED 3D FEATURE MATCHING
Federico Tombari, University of Bologna, Italy; Samuele Salti, University of Bologna, Italy; Luigi Di Stefano, Universita' di Bologna, Italy

14:20
MP.PA.7 MOVING OBJECT SELECTION BASED ON AN ACTIVE CURVE APPROACH
Marwen Nouri, University of Paris Descartes, France; Emmanuel Marilly, Alcatel Lucent Bell Labs France, France; Nicole Vincent, Université Paris 5, France

14:20
MP.PA.8 IMAGE ANALYSIS USING SEPARABLE TWO-DIMENSIONAL DISCRETE ORTHOGONAL MOMENTS
Hongqing Zhu, East China University of Science and Technolog, P.R. China

14:20
MP.PA.9 ENSEMBLE OF FURTHEST SUBSPACE PAIRS FOR ENHANCED IMAGE SET MATCHING
Mehrtash T. Harandi, Conrad Sanderson, Abbas Bigdeli, Brian C Lovell, NICTA, Australia

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14:20
MP.PA.10 FROM UNIVERSAL BAG-OF-WORDS TO ADAPTIVE BAG-OF-PHRASES FOR MOBILE SCENE RECOGNITION
Tao Chen, Kim Hui Yap, Lap-Pui Chau, Nanyang Technological University, Singapore

14:20
MP.PA.11 GENERIC POLAR HARMONIC TRANSFORMS FOR INVARIANT IMAGE DESCRIPTION
Thai V. Hoang, LORIA, Salvatore Tabbone, University Nancy 2, France

14:20
MP.PA.12 COMBINING SORTED RANDOM FEATURES FOR TEXTURE CLASSIFICATION
Li Liu, National University of Defense Technology, P.R. China; Paul Fieguth, University of Waterloo, Canada; Gangyao Kuang, National University of Defense Technology, P.R. China

14:20
MP.PA.13 LSP: LOCAL SIMILARITY PATTERN, A NEW APPROACH FOR ROTATION INVARIANT NOISY TEXTURE ANALYSIS
Mina Masoudifar, Sabzevar Tarbiat Moallem University, Iran; Hamid Reza Pourreza, Ferdowsi University of Mashad, Iran; MohammadMahdi ManafZade, Ferdowsi University, Iran

14:20
MP.PA.14 LOCAL BINARY PATTERN HISTOGRAM BASED TEXTON LEARNING FOR TEXTURE CLASSIFICATION
Yonggang He, Nong Sang, Rui Huang, Huazhong University of Science and Technology, P.R. China

14:20
MP.PA.15 FAST FACIAL LANDMARK DETECTION USING CASCADE CLASSIFIERS AND A SIMPLE 3D MODEL
Ang Liu, Peking University, P.R. China; Yangzhou Du, Intel China Research Center, P.R. China; Tao Wang, Intel China Research Center, P.R. China; Jianguo Li, Intel China Research Center, Beijing, P.R. China; Eric Li, Intel China Research Centre, Intel Corp., P.R. China; Yimin Zhang, Intel China Research Center, Canada; Yong Zhao, Peking University, P.R. China;

MP.PB Monday, September 12, 14:20-17:35

3D Modeling and Synthesis (Poster)
Room: Grand Hall 2
Chair: Kiyoharu Aizawa, University of Tokyo, Japan

14:20
MP.PB.1 INTRINSIC GEOMETRIC DISTORTIONS IN A TYPE OF MULTI-PROJECTOR LIGHT FIELD DISPLAY
Amir Said, Hewlett Packard Laboratories, USA

14:20
MP.PB.2 OPTIMAL CONDITIONS FOR CAMERA CALIBRATION USING A PLANAR TEMPLATE
Carlos Ricolfe-Viala, Universidad Politecnica Valencia, Spain; Antonio-Jose Sanchez-Salmeron, Universidad Politecnica Valencia, Spain

14:20
MP.PB.3 ZHANG'S ONE-DIMENSIONAL CALIBRATION REVISITED WITH THE HETEROSCEDASTIC ERROR-IN-VARIABLES MODELS
Liang Wang, Beijing University of Technology, P.R. China

14:20
MP.PB.4 BLIND CORRECTION OF LENS ABERRATION USING ZERNIKE MOMENTS
Kambiz Rahbar, Young Researchers Club, Islamic Azad University, Tehran Center, Iran; Karim Faez, Amirkabir University of Technology, Iran

14:20
MP.PB.5 SEMI-AUTOMATIC 2D TO 3D IMAGE CONVERSION USING SCALE-SPACE RANDOM WALKS AND A GRAPH CUTS BASED DEPTH PRIOR
Raymond Phan, Richard J Rzeszutek, Dimitri Androutsos, Ryerson University, Canada

14:20
MP.PB.6 DENSE INTERPOLATION OF 3D POINTS BASED ON SURFACE AND COLOR
Zhaoyin Jia, Yao-Jen Chang, Cornell University, USA; Tzung-Han Lin, Industrial Technology Research Institute, Taiwan; Tsuhan Chen, Cornell University, USA

14:20
MP.PB.7 ROBUST ALBEDO ESTIMATION FROM A FACIAL IMAGE WITH CAST SHADOW
Sungho Suh, Minsik Lee, Chong-Ho Choi, Seoul National University, Korea

14:20
MP.PB.8 GENERATING COMPACT MESHES UNDER PLANAR CONSTRAINTS: AN AUTOMATIC APPROACH FOR MODELING BUILDINGS FROM AERIAL LIDAR
Yannick Verdié, INRIA, France; Florent Lafarge, INRIA, France; Josiane Zerubia, INRIA, Sophia Antipolis, France

14:20
MP.PB.9 PATCH-SWEEPING WITH ROBUST PRIOR FOR HIGH PRECISION DEPTH ESTIMATION IN REAL-TIME SYSTEMS
Wolfgang Waizenegger, Fraunhofer Heinrich-Hertz-Institut, Germany; Nicole Atzpadin, Fraunhofer Heinrich-Hertz-Institut, Germany; Oliver Schreer, Fraunhofer Heinrich-Hertz-Institut, Germany; Ingo Feldmann, Fraunhofer Heinrich-Hertz-Institut, Germany

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14:20
MP.PB.10 MARKER-LESS HUMAN POSE ESTIMATION AND SURFACE RECONSTRUCTION USING A SEGMENTED MODEL
Weilan Luo, University of Tokyo, Japan; Toshihiko Yamasaki, The University of Tokyo, Japan; Kiyoharu Aizawa, University of Tokyo, Japan

14:20
MP.PB.11 A DYNAMIC APPROACH FOR APPROXIMATE PAIRWISE ALIGNMENT BASED ON 4-POINTS CONGRUENCE SETS OF 3D POINTS
Juarez Silva Junior, University of Brasilia, Brazil; Dibio Borges, University of Brasilia, Brazil; Flavio Vidal, University of Brasilia, Brazil

14:20
MP.PB.12 IMPLICIT B-SPLINE FITTING USING THE 3L ALGORITHM
Mohammad Rouhani, Computer Vision Center, Spain; Angel D. Sappa, Computer Vision Center, Spain

14:20
MP.PB.13 SURFACE COMPLETION OF SHAPE AND TEXTURE BASED ON ENERGY MINIMIZATION
Norihiko Kawai, University of California at Berkeley, USA; Avideh Zakhor, University of California at Berkeley, USA; Tomokazu Sato, Nara Institute of Science and Technology, Japan; Naokazu Yokoya, Nara Institute of Science and Technology, Japan

14:20
MP.PB.14 DENSE POINT-TO-POINT CORRESPONDENCES BETWEEN 3D FACES WITH LARGE VARIATIONS FOR CONSTRUCTING 3D MORPHABLE MODELS
Moritz Kaiser, Technical University of Munich, Germany; Nicolas H. Lehment, Technische Universität München, Germany; Gerhard Rigoll, Technische Universität München, Germany

14:20
MP.PB.15 3D MESH COMPRESSION BASED ON DUAL-RING PREDICTION AND MMSE PREDICTION
Dae-Youn Lee, Korea University, Korea; Jae-Kyun Ahn, Korea University, Korea; Minsu Ahn, Samsung Advanced Institute of Technology, Korea; James D. K. Kim, Samsung Advanced Institute of Technology, Korea; Changyeong Kim, Samsung Advanced Institute of Technology, Korea; Chang-Su Kim, Korea University, Korea

14:20
MP.PB.16 VISUAL PERTINENT 2D-TO-3D VIDEO CONVERSION BY MULTI-CUE FUSION
Zhebin Zhang, Institute of Computing Technologies, Chinese Academy of Science, P.R. China; Yizhou Wang, Peking University, P.R. China; Tingting Jiang, Peking University, P.R. China; Wen Gao, Peking University, P.R. China

MP.PC Monday, September 12, 14:20-17:35

Image & Video Communication (Poster)
Room: Grand Hall 2
Chair: Amy Reibman, AT&T Labs - Research, USA

14:20
MP.PC.1 QOE-DRIVEN RESOURCE OPTIMIZATION FOR USER GENERATED VIDEO CONTENT IN NEXT GENERATION MOBILE NETWORKS
Ali El Essaili, TUM, Germany; Eckehard Steinbach, Munich University of Technology, Germany; Daniele Munaretto, University of Padova, Italy; Srisakul Thakolsri, DoCoMo Euro-Labs, Germany; Wolfgang Kellerer, DOCOMO Communications Laboratories Europe, Germany

14:20
MP.PC.2 SECURE TRANSCODING FOR COMPRESSIVE MULTIMEDIA SENSING
Li-Wei Kang, Academia Sinica, Taiwan; Chih-Yang Lin, Asia University, Taiwan; Hung-Wei Chen, Academia Sinica, Taiwan; Chia-Mu Yu, Academia Sinica and Natioanl Taiwan University, Taiwan; Chun-Shien Lu, Institute of Information Science, Academia Sinica, Taiwan; Chao-yung Hsu, Academia Sinica, Taiwan; Soo-Chang Pei, National Taiwan University, Taiwan;

14:20
MP.PC.3 SCALABLE COMPRESSIVE VIDEO
Vladimir Stankovic, University of Strathclyde, United Kingdom; Lina Stankovic, University of Strathclyde, United Kingdom; Samuel Cheng, University of Oklahoma, USA

14:20
MP.PC.4 SYNCHRONIZATION OF PRESENTATION SLIDES AND LECTURE VIDEOS USING BIT RATE SEQUENCES
Georg Schroth, Technische Universität München, Germany; Ngai-Man Cheung, Stanford University, USA; Eckehard Steinbach, Munich University of Technology, Germany; Bernd Girod, Stanford University, USA

14:20
MP.PC.5 EFFECT OF A SYNTHESIZED DEPTH VIEW ON MULTI-VIEW RENDERING QUALITY
Jin Young Lee, Samsung Electronics Co., Ltd., Korea; Jaejoon Lee, Samsung Electronics, Korea; Dusik Park, Advanced Media Lab, SAIT, Samsung Electronics, Korea

14:20
MP.PC.7 CAPACITY IMPROVEMENT IN EMBMS USING SVC AND LAYER-AWARE BEARER ALLOCATION
Cornelius Hellge, Fraunhofer Institute for Telecommunications - Heinrich-Hertz-Institute, Germany; Robert Skupin, Fraunhofer Institute for Telecommunications, Heinrich-Hertz-Institut, Germany; Jaihyung Cho, ETRI, Korea; Thomas Schierl, Fraunhofer HHI, Germany; Thomas Wiegand, Fraunhofer Institute for Telecommunications - Heinrich-Hertz-Institute, Germany;

14:20
MP.PC.8 ROBUST VIDEO TRANSMISSION USING PYRAMID VECTOR QUANTISATION
Syed Mohsin Matloob Bokhari, University of Bristol, United Kingdom; David Bull, University of Bristol, United Kingdom; Andrew Nix, University of Bristol, United Kingdom

(Continued on next page.)

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14:20
MP.PC.9 AN IMPROVED CROSS-LAYER MAPPING MECHANISM FOR PACKET VIDEO DELIVERY OVER WLAN
Haidong Wang, Xi'an Jiaotong University, P.R. China; Guizhong Liu, Xi'an Jiaotong University, P.R. China; Qinli Wang, Xi'an Jiaotong University, P.R. China

14:20
MP.PC.10 FAIRNESS AND QOS GUARANTEED USER SCHEDULING FOR MULTI-USER MIMO BROADCASTING CHANNEL
Qian Liu, University at Buffalo, USA; Chang Wen Chen, State University of New York at Buffalo, USA

14:20
MP.PC.11 PERFORMANCE OF H.264 WITH ISOLATED BIT ERROR: PACKET DECODE OR DISCARD?
Murat Demirtas, University of California, Irvine, USA; Amy Reibman, AT&T Labs - Research, USA; Hamid Jafarkhani, University of California, Irvine, USA

14:20
MP.PC.12 EFFICIENT ITERATIVE RECEIVER FOR LDPC CODED WIRELESS IPTV SYSTEM
YouZhe Fan, The Hong Kong University of Science and Technology, Hong Kong; James She, University of Cambridge, United Kingdom; Cy Tsui, HKUST, Hong Kong

14:20
MP.PC.13 HIGH PERFORMANCE H.264/AVC ENCODING MOTION PREDICTION ALGORITHM
Ronaldo Husemann, UNIVATES, Brazil; Valter Roesler, Federal University of Rio Grande do Sul (UFRGS), Brazil; Altamiro A Susin, Federal University of Rio Grande do Sul, Brazil

14:20
MP.PC.14 SPATIAL PREDICTION BASED ON SELF-SIMILARITY COMPENSATION FOR 3D HOLOSCOPIC IMAGE AND VIDEO CODING
Caroline Conti, Instituto de Telecomunicacoes, Portugal; João Lino, Instituto de Telecomunicações, Portugal; Paulo Nunes, ISCTE-IUL / Instituto de Telecomunicações, Portugal; Luis Ducla Soares, I.S.C.T.E. / I.T. - Lisbon, Portugal; Paulo Lobato Correia, Instituto Superior Tecnico, Portugal

MP.PD Monday, September 12, 14:20-17:35

Stereo Processing (Poster)
Room: Grand Hall 2
Chair: Fernando Jaureguizar, Universidad Politécnica de Madrid, Spain

14:20
MP.PD.1 ROBUST COLOR CORRECTION IN STEREO VISION
Qi Wang, Pingkun Yan, Yuan Yuan, Chinese Academy of Sciences, P.R. China; Xuelong Li, Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences, P.R. China

14:20
MP.PD.2 ACCURATE DEPTH ESTIMATION USING STRUCTURED LIGHT AND PASSIVE STEREO DISPARITY ESTIMATION
Qiang Li, UNSW@ADFA, Australia; Moyuresh Biswas, University of New South Wales, Australia; Mark Pickering, UNSW@adfa, Australia; Michael R Frater, The University of New South Wales, Australia

14:20
MP.PD.3 CRYO-BALLOON RECONSTRUCTION FROM TWO VIEWS
Andreas Kleinoeder, Friedrich-Alexander-University Erlangen-Nuremberg, Germany; Alexander Brost, Pattern Recognition Lab, Germany; Felix Bourier, Klinik fuer Herzrhythmusstoerungen, Germany; Martin Koch, Pattern Recognition Lab, Germany; Klaus Kurzidim, Klinik fuer Herzrhythmusstoerungen, Germany; Joachim Hornegger, University of Erlangen-Nuremberg, Germany; Norbert Strobel, Siemens AG, Germany

14:20
MP.PD.4 IMAGE RECTIFICATION FOR SINGLE CAMERA STEREO SYSTEM
Lingfeng Xu, Oscar Au, Wenxiu Sun, HKUST, Hong Kong; Yujun Li, Hong Kong University of Science and Technology, Hong Kong; Sung-Him Chui, Chun-Wing Kwok, HKUST, Hong Kong

14:20
MP.PD.5 STEREOSCOPIC VISION THROUGH EPIPOLARIZATION WITHOUT ORIENTATION PARAMETERS
José Herraéz, José Luis Denia, Pablo Navarro, Politechnic University of Valencia, Spain; Jaime Rodriguez, University of Santiago de Compostela, Spain; María Teresa Martin, University of Santiago de Compostela, Spain

14:20
MP.PD.6 ASSISTING SYSTEM OF VISUALLY IMPAIRED IN TOUCH PANEL OPERATION USING STEREO CAMERA
Atsushi Yamashita, Shizuoka University, Japan; So Kuno, Shizuoka University, Japan; Toru Kaneko, Shizuoka University, Japan

14:20
MP.PD.7 EFFECT OF BRIGHTNESS ON THE QUALITY OF VISUAL 3D PERCEPTION
Mahsa T. Pourazad, TELUS Communications Company, Canada; Zicong Mai, University of British Columbia, Canada; Panos Nasiopoulos, University of British Columbia, Canada; Konstantinos N Plataniotis, University of Toronto, Canada; Rabab Ward, University of British Columbia, Canada

14:20
MP.PD.8 EXPLOITING SPATIAL CONSISTENCY FOR OBJECT CLASSIFICATION AND POSE ESTIMATION
Michael Hödlmoser, Vienna University of Technology, Austria; Branislav Micusik, AIT Austrian Institute of Technology, Austria; Martin Kampel, Vienna University of Technology, Austria

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14:20
MP.PD.10 MODEL-BASED MULTIVIEW STEREO VIA LEVEL SETS WITH STATISTICAL SHAPE PRIOR
Moumen El-Melegy, Assiut University, Egypt; Aly Farag, University of Louisville, USA

14:20
MP.PD.11 JOINT MULTI-VIEW FOREGROUND SEGMENTATION AND 3D RECONSTRUCTION WITH TOLERANCE LOOP
Jaime Gallego, UPC, Spain; Jordi Salvador, Technical University of Catalonia (UPC), Spain; Josep R. Casas, Technical University of Catalonia, Spain; Montse Pardas, Universitat Politècnica de Catalunya (UPC), Spain

14:20
MP.PD.12 DYNAMIC VOXEL CARVING IN TENNIS BASED ON PLAYER LOCALISATION USING A LOW COST CAMERA NETWORK
David S Monaghan, Dublin City University (DCU), Ireland; Philip T Kelly, Dublin City University, Ireland; Noel. E. O'Connor, Dublin City University, Ireland

14:20
MP.PD.13 A CONVEX-OPTIMIZATION APPROACH TO DENSE STEREO MATCHING
Yujun Li, Oscar Au, Lingfeng Xu, Wenxiu Sun, Sung-Him Chui, Chun-Wing Kwok, HKUST, Hong Kong;

14:20
MP.PD.14 TWO-VIEW GEOMETRY ESTIMATION USING THE RODRIGUES ROTATION FORMULA
Lorenzo Sorgi, Via Maiorise, Italy

14:20
MP.PD.15 A NEW FAST MOTION ESTIMATION AND MODE DECISION ALGORITHM FOR H.264 DEPTH MAPS ENCODING IN FREE VIEWPOINT TV
Gianluca Cernigliaro, Universidad Politécnica de Madrid, Spain; Matteo Naccari, Instituto de Telecomunicações, Portugal; Fernando Jaureguizar, Universidad Politécnica de Madrid, Spain; Julián Cabrera, Universidad Politécnica de Madrid, Spain; Fernando Pereira, IST-IT, Portugal; Narciso García, Universidad Politécnica de Madrid, Spain;

MP.PE Monday, September 12, 14:20-17:35

Features for Image Analysis (Poster)
Room: Grand Hall 2
Chair: Michael H.F. Wilkinson, University of Groningen, The Netherlands

14:20
MP.PE.1 BOUNDED MULTIVARIATE SURFACES ON MONOVARIATE INTERNAL FUNCTIONS
Shriprakash Sinha, Sabbatical, India; Gert J. ter Horst, UMCG, Neuroimaging Center, The Netherlands

14:20
MP.PE.2 A FAST COMPONENT-TREE ALGORITHM FOR HIGH DYNAMIC-RANGE IMAGES AND SECOND GENERATION CONNECTIVITY
Michael H.F. Wilkinson, University of Groningen, The Netherlands

14:20
MP.PE.3 CORNER DETECTION ON HEXAGONAL PIXEL BASED IMAGES
Si Jing Liu, Hong Kong University of Science and Technology, Hong Kong; Sonya A Coleman, University of Ulster, United Kingdom; Dermot Kerr, University of Ulster, United Kingdom; Bryan W. Scotney, University of Ulster, United Kingdom; Bryan Gardiner, University of Ulster, United Kingdom

14:20
MP.PE.4 A NOVEL REGION-BASED ACTIVE CONTOUR APPROACH RELYING ON LOCAL AND GLOBAL INFORMATION
Wassima Aitfares, LAAS-CNRS, Université Paul Sabatier, France; Ariane Herbulot, LAAS-CNRS, France; Michel Devy, LAAS-CNRS, France; Houssine Bouyakhf, Université Mohammed V Agdal, Morocco; Fakhita Regragui, Mohammed V Agdal University, Morocco

14:20
MP.PE.5 A NOVEL FEATURE DESCRIPTOR BASED ON THE SHEARLET TRANSFORM
William Robson Schwartz, University of Campinas, Brazil; Ricardo Dutra da Silva, University of Campinas, Brazil; Larry S Davis, University of Maryland, USA; Helio Pedrini, Institute of Computing, University of Campinas, Brazil

14:20
MP.PE.6 A ROBUST PARAMETRIC ACTIVE CONTOUR BASED ON FOURIER DESCRIPTORS
Tao Li, INRIA Rennes-Bretagne Atlantique, France; Alexandre Krupa, INRIA Rennes-Bretagne Atlantique, France; Christophe Collewet, INRIA Rennes-Bretagne Atlantique, France

14:20
MP.PE.7 A SIFT-LBP IMAGE RETRIEVAL MODEL BASED ON BAG-OF-FEATURES
Xiaoli Yuan, Beihang University, P.R. China; Jing Yu, Minzu University, P.R. China; Zengchang Qin, Carnegie Mellon University, USA; Tao Wan, Carnegie Mellon University, USA

14:20
MP.PE.8 A DAISY-LIKE COMPASS OPERATOR
Xiaojin Gong, Zhejiang University, P.R. China; Jilin Liu, Zhejiang University, P.R. China

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14:20
MP.PE.9 ELLIPSE DETECTION USING SAMPLING CONSTRAINTS
Yi Tang, University at Buffalo, The State University of New York, USA; Sargur Srihari, Cedar Buffalo, USA

14:20
MP.PE.10 A SHAPE CONTOUR DESCRIPTOR BASED ON SALIENCE POINTS
Glauco Pedrosa, Federal University of Uberlândia, Brazil; Celia Barcelos, Federal University of Uberlândia, Brazil; Marcos Batista, Federal University of Goiás, Brazil

14:20
MP.PE.11 BOOSTING GLOBAL SCENE CLASSIFICATION ACCURACY BY DISCRIMINATIVE REGION LOCALIZATION
Thanh Duc Ngo, The Graduate University for Advanced Studies, Japan; Duy-Dinh Le, National Institute of Informatics, Japan; Shin'ichi Satoh, National Institute of Informatics, Japan

14:20
MP.PE.12 COLOR-BASED LIPS EXTRACTION APPLIED TO VOICE ACTIVITY DETECTION
Carlos Lopes, UFRGS, Brazil; Andre Gonçalves, UFRGS, Brazil; Jacob Scharcanski, UFRGS, Brazil; Claudio R Jung, Universidade Federal do Rio Grande do Sul, Brazil

14:20
MP.PE.13 HIGH-PERFORMANCE ASIC ARCHITECTURE FOR HYSTERESIS THRESHOLDING AND COMPONENT FEATURE EXTRACTION IN LIMITED-RESOURCE APPLICATIONS
Mayssaa Al Najjar, University of Louisiana at Lafayette, USA; Swetha Karlapudi, University of Louisiana at Lafayette, USA; Magdy Bayoumi, University of Louisiana, USA

14:20
MP.PE.14 APPLICATION OF COMPLEX NETWORKS FOR AUTOMATIC CLASSIFICATION OF DAMAGING AGENTS IN SOYBEAN LEAFLETS
Thiago Souza, Universidade Federal de Ouro Preto, Brazil; Eduardo Mapa, Prefeitura Municipal de Ouro Preto, Brazil; Kayran Santos, Universidade Federal de Ouro Preto, Brazil; David Menotti, Universidade Federal de Ouro Preto, Brazil

14:20
MP.PE.15 FREE-FORM ANISOTROPY: A NEW METHOD FOR CRACK DETECTION ON PAVEMENT SURFACE IMAGES
Tien Sy Nguyen, Vectra, France; Stephane Begot, University Orleans, France; Florent Duculty, PRISME, University of Orleans, France; Manuel Avila, University of Orleans, France

14:20
MP.PE.16 EFFICIENT QUANTIZATION OF COLOR SIFT FOR IMAGE CLASSIFICATION
Xiao Zhou, Hefei Normal University, P.R. China; Cai-Zhi Zhu, National Institute of Informatics, Japan; Shin'ichi Satoh, National Institute of Informatics, Japan

MP.PF Monday, September 12, 14:20-17:35

Image & Video Synthesis (Poster)
Room: Grand Hall 2
Chair: Muhittin Gokmen, Istanbul Technical University, Turkey

14:20
MP.PF.1 TIME-VARIANT MODELING FOR GENERAL SURFACE APPEARANCE
Yi-Lei Chen, National Tsing Hua University, Taiwan; Chiou-Ting Hsu, National Tsing Hua University, Taiwan

14:20
MP.PF.2 FEATURE-PRESERVING THUMBNAIL GENERATION BASED ON GRAPH CUTS
Seong-Gyun Jeong, Korea University, Korea; Chang-Su Kim, Korea University, Korea

14:20
MP.PF.3 SYNTHESIS OF TWO-DIMENSIONAL FRACTIONAL BROWNIAN MOTION VIA CIRCULANT EMBEDDING
Donny Danudirdjo, Akira Hirose, The University of Tokyo, Japan

14:20
MP.PF.4 BI-LAYER INPAINTING FOR NOVEL VIEW SYNTHESIS
Hwasup Lim, Samsung Advanced Institute of Technology, Korea; Yong Sun Kim, Samsung Advanced Institute of Technology, Korea; Seungkyu Lee, Samsung Advanced Institute of Technology, Korea; Ouk Choi, Samsung Advanced Institute of Technology, Korea; James D. K. Kim, Changyeong Kim, Samsung Advanced Institute of Technology, Korea

14:20
MP.PF.5 AUGMENTED REALITY MIRROR FOR VIRTUAL FACIAL ALTERATIONS
Vlado Kitanovski, Ebroul Izquierdo, Queen Mary, University of London, United Kingdom

14:20
MP.PF.6 2D/3D VIRTUAL FACE MODELING
SoonKee Chung, Korea Advanced Institute of Science and Technology, USA; Jean-Charles Bazin, KAIST, Korea; In So Kweon, Korea Advanced Institute of Science and Technology (KAIST), Korea

14:20
MP.PF.7 SYNTHESIZING FOR FACE RECOGNITION
Yuelong Li, Jufu Feng, Peking University, P.R. China

14:20
MP.PF.8 EFFICIENT RENDERING DISTORTION ESTIMATION FOR DEPTH MAP COMPRESSION
Qiuwen Zhang, Shanghai University, P.R. China; Ping An, School of Communication and Information Engineering, ShanghaiUniversity, P.R. China

14:20
MP.PF.9 ON THE USE OF HEMISPHERICAL HARMONICS FOR MODELING IMAGES OF OBJECTS UNDER UNKNOWN DISTANT ILLUMINATION
Shireen Elhabian, University of Louisville, USA; Ham Rara, University of Louisville, USA; Aly Farag, University of Louisville, USA

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14:20
MP.PF.10 AESTHETIC ENHANCEMENT OF LANDSCAPE PHOTO GRAPHS AS INFORMED BY PAINTINGS ACROSS DEPTH LAYERS
Xiaoyan Zhang, Nanyang Technological University, Singapore; Martin Constable, Nanyang Technological University, Singapore; Kap Chan, NTU, Singapore

14:20
MP.PF.11 VIRTUAL ADS INSERTION IN STREET BUILDING VIEWS FOR AUGMENTED REALITY
Yu Huang, Huawei Technologies, USA; Qiang Hao, Western Virginia University, USA; Heather Yu, Huawei Technologies (USA), USA

14:20
MP.PF.12 COLOR STYLE TRANSFER BY CONSTRAINT LOCALLY LINEAR EMBEDDING
Kun Zeng, Liang Lin, Sun Yat-Sen University, P.R. China

14:20
MP.PF.13 FACE SKETCH-PHOTO SYNTHESIS BASED ON SUPPORT VECTOR REGRESSION
Jiewei Zhang, Nannan Wang, Xidian University, P.R. China; Xinbo Gao, Xidian University, P.R. China; Dacheng Tao, University of Technology, Sydney, Singapore; Xuelong Li, Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences, P.R. China

14:20
MP.PF.14 EFFICIENT FACE HALLUCINATION BY USING SHAPE AND TEXTURE DEPENDENCY
Aydin Akyol, Istanbul Technical University, Turkey; Muhittin Gokmen, Istanbul Technical University, Turkey

14:20
MP.PF.15 ADAPTIVE KPCA-BASED MISSING TEXTURE RECONSTRUCTION APPROACH INCLUDING CLASSIFICATION SCHEME VIA DIFFERENCE SUBSPACES
Takahiro Ogawa, Hokkaido University, Japan; Miki Haseyama, Hokkaido University, Japan

MP.PG Monday, September 12, 14:20-17:35

Interpolation, Resizing and Super-resolution (Poster)
Room: Grand Hall 2
Chair: Javier Mateos, University of Granada, Spain

14:20
MP.PG.1 ISOTROPIC HUBER MRFS FOR STRUCTURE SUPER-RESOLUTION
Youngjin Park, Suk Yoo, Seoul National University, Korea

14:20
MP.PG.2 SINGLE IMAGE SUPER RESOLUTION WITH HIGH RESOLUTION DICTIONARY
Guangwu Mu, Xinbo Gao, Xidian University, P.R. China; Kaibing Zhang, Xidian University, P.R. China; Xuelong Li, Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences, P.R. China; Dacheng Tao, University of Technology, Sydney, Singapore

14:20
MP.PG.3 SUPER-RESOLUTION INTERPOLATION WITH A QUASI BLUR-HYPOTHESIS
Takahiro Saito, Kanagawa University, Japan; Ken-ichi Ishikawa, Kanagawa University, Japan; Takashi Komatsu, Kanagawa University, Japan

14:20
MP.PG.4 ADAPTIVE INCREMENTAL VIDEO SUPER-RESOLUTION WITH TEMPORAL CONSISTENCY
Heng Su, Ying Wu, Northwestern University, USA; Jie Zhou, Tsinghua University, P.R. China

14:20
MP.PG.5 SUPERFAST SUPERRESOLUTION
Filip Sroubek, Jan Kamenicky, Institute of Information Theory and Automation, Czech Republic; Peyman Milanfar, University of California, Santa Cruz, USA

14:20
MP.PG.6 VIDEO CODING WITH WAVELET IMAGE SIZE REDUCTION AND WAVELET SUPER RESOLUTION RECONSTRUCTION
Yasutaka Matsuo, NHK (Japan Broadcasting Corporation), Japan; Toshie Misu, NHK (Japan Broadcasting Corporation), Japan; Shinichi Sakaida, NHK, Japan; Yoshiaki Shishikui, NHK, Japan

14:20
MP.PG.7 SINGLE IMAGE SUPER RESOLUTION VIA TEXTURE CONSTRAINED SPARSE REPRESENTATION
Haitao Yin, Shutao Li, Jianwen Hu, Hunan University, P.R. China

14:20
MP.PG.8 FAST EDGE-FILTERED IMAGE UPSAMPLING
Shantanu H Joshi, UCLA, USA; Antonio Marquina, University of Valencia, Spain; Stan Osher, University of California Los Angeles, USA; Ivo Dinov, UCLA, USA; Arthur Toga, UCLA, USA; John Van Horn, UCLA, USA;

14:20
MP.PG.9 A STRUCTURE-GUIDED CONDITIONAL SAMPLING MODEL FOR VIDEO RESOLUTION ENHANCEMENT
Ying Liu, University of Waterloo, Canada; Alexander Wong, University of Waterloo, Canada; Paul Fieguth, University of Waterloo, Canada

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14:20
MP.PG.10 BAYESIAN FRAME INTERPOLATION BY FUSING MULTIPLE MOTION-COMPENSATED PREDICTION FRAMES
Hongbin Liu, Harbin Institute of Technology, P.R. China; Ruiqin Xiong, Peking University, P.R. China

14:20
MP.PG.11 SIMILARITY MODULATED BLOCK ESTIMATION FOR IMAGE INTERPOLATION
Jie Ren, Jiaying Liu, Wei Bai, Zongming Guo, Peking University, P.R. China

14:20
MP.PG.12 SPRINGS-BASED SIMULATION FOR IMAGE RETARGETING
Roberto Gallea, Università degli Studi di Palermo, Italy; Edoardo Ardizzone, University of Palermo, Italy; Roberto Pirrone, University of Palermo, Italy

14:20
MP.PG.13 FAST AND HIGH QUALITY LEARNING-BASED SUPER-RESOLUTION UTILIZING TV REGULARIZATION METHOD
Tomio Goto, Shotaro Suzuki, Satoshi Hirano, Masaru Sakurai, Nagoya Insitute of Technology, Japan; Truong Nguyen, University of California in San Diego, USA

14:20
MP.PG.14 A HIDDEN MARKOV MODEL-BASED METHODOLOGY FOR INTRA-FIELD VIDEO DEINTERLACING
Amin Behnad, Konstantinos N Plataniotis, University of Toronto, Canada; Xiaolin Wu, McMaster University, Canada

14:20
MP.PG.15 TRANSFORM DOMAIN SEMI-SUPER RESOLUTION
Edson Hung, Diogo Garcia, Universidade de Brasília, Brazil; Ricardo de Queiroz, University of Brasil, Brazil

14:20
MP.PG.16 EFFICIENT SUPER-RESOLUTION DRIVEN BY SALIENCY SELECTIVITY
Nabil Sadaka, Lina Karam, Arizona State University, USA

TA.L1 Tuesday, September 13, 10:15-12:50

Advances in Motion Representation for Video Coding (Special Session)
Room: Silver Hall
Co-Chairs: Andreas Krutz, Technische Universität Berlin, Germany; Thomas Sikora, Technische Universität Berlin, Germany

10:15
TA.L1.1 A BLOCK-ADAPTIVE SKIP MODE FOR INTER PREDICTION BASED ON PARAMETRIC MOTION MODELS
Alexander Glantz, Michael Tok, Andreas Krutz, Thomas Sikora, Technische Universität Berlin, Germany

10:35
TA.L1.2 FAST ENCODING ALGORITHMS FOR GEOMETRY-ADAPTIVE BLOCK PARTITIONING
Philippe Bordes, Edouard Francois, Dominique Thoreau, Technicolor, France

11:30
TA.L1.3 EFFICIENT CODING OF VIDEO SEQUENCES BY NON-LOCAL IN-LOOP DENOISING OF REFERENCE FRAMES
Eugen Wige, University of Erlangen-Nuremberg, Germany; Gilbert Yammine, University of Erlangen-Nuremberg, Germany; Peter Amon, Siemens, Germany; Andreas Hutter, Siemens Corporate Technology, Germany; Andre Kaup, University of Erlangen-Nuremberg, Germany

11:50
TA.L1.4 GENERALIZED INTERPOLATION FOR MOTION COMPENSATED PREDICTION
Haricharan Lakshman, Fraunhofer HHI, Germany; Heiko Schwarz, Fraunhofer HHI, Germany; Thierry Blu, CUHK, Hong Kong; Thomas Wiegand, HHI/FhG, Germany

12:10
TA.L1.5 PICTURE-LEVEL PARAMETERIC MOTION REPRESENTATION FOR EFFICIENT MOTION COMPENSATION
Jaewon Sung, LG Electronics, Korea; Seung-Wook Park, LG Electronics, Korea; Joonyoung Park, LG Electronics, Korea; Byeong-Moon Jeon, LG Electronics, Korea

12:30
TA.L1.6 BI-PREDICTION COMBINING TEMPLATE AND BLOCK MOTION COMPENSATIONS
Chung-Lin Lee, Chun-Chi Chen, Yi-Wen Chen, Mu-Hsuan Wu, Chung-Hao Wu, National Chiao Tung University, Taiwan;

TA.L2 Tuesday, September 13, 10:15-12:50

Sparse Representation and Sparse Coding (Lecture)
Room: 211/212
Chair: Nick Geoffrey Kingsbury, University of Cambridge, United Kingdom

10:15
TA.L2.1 LEARNING COMPLEX IMAGE PATTERNS WITH SCALE AND SHIFT INVARIANT SPARSE CODING
Xiaobing Liu, Bo Zhang, Tsinghua University, P.R. China

10:35
TA.L2.2 ON SPARSE REPRESENTATIONS OF COLOR IMAGES
Xiaolin Wu, Guangtao Zhai, McMasster University, Canada

11:30
TA.L2.3 HYPERSPECTRAL IMAGE CLASSIFICATION VIA KERNEL SPARSE REPRESENTATION
Yi Chen, Johns Hopkins University, USA; Nasser Nasrabadi, US Army Research Laboratory, USA; Trac D. Tran, Johns Hopkins University, USA

11:50
TA.L2.4 IMPROVED SPARSE CODING USING MANIFOLD PROJECTIONS
Karthikeyan Natesan Ramamurthy, Jayaraman Thiagarajan, Arizona State University, USA; Andreas Spanias, ASU, USA

12:10
TA.L2.5 LEARNING INVARIANT COLOR FEATURES WITH SPARSE TOPOGRAPHIC RESTRICTED BOLTZMANN MACHINES
Hanlin Goh, Institute for Infocomm Research, Singapore; Lukasz Kusmierz, Institute for Infocomm Research, Singapore; Joo-Hwee Lim, Institute for Infocomm Research, Singapore; Nicolas Thome, University Pierre et Marie Curie, France; Matthieu Cord, UPMC Paris 6, France

12:30
TA.L2.6 LEARNING DICTIONARY VIA SUBSPACE SEGMENTATION FOR SPARSE REPRESENTATION
Jianzhou Feng, Li Song, Xiaokang Yang, WenJun Zhang, Shanghai JiaoTong University, P.R. China

TA.L3 Tuesday, September 13, 10:15-12:30

Image Classification (Lecture)
Room: 214/216
Chair: Andrea Cavallaro, Queen Mary, University of London, United Kingdom

10:15
TA.L3.1 CW-SSIM BASED IMAGE CLASSIFICATION
Yang Gao, Abdul Rehman, Zhou Wang, University of Waterloo, Canada

10:35
TA.L3.2 TREE TRUNK DETECTION USING CONTRAST TEMPLATES
Yan Lu, Christopher Rasmussen, University of Delaware, USA

11:30
TA.L3.3 HUMAN SKIN DETECTION IN IMAGES BY MSER ANALYSIS
Lei Huang, Tian Xia, Yong-Dong Zhang, Shou-Xun Lin, Institute of Computing Technology, Chinese Academy of Sciences, P.R. China

11:50
TA.L3.4 HMAX-S: DEEP SCALE REPRESENTATION FOR BIOLOGICALLY INSPIRED IMAGE CATEGORIZATION
Christian Theriault, Nicolas Thome, University Pierre et Marie Curie, France; Matthieu Cord, UPMC Paris 6, France

12:10
TA.L3.6 STOCHASTIC MINIMUM SPANNING FOREST APPROACH FOR SPECTRAL-SPATIAL CLASSIFICATION OF HYPERSPECTRAL IMAGES
Kévin Bernard, University of Iceland, United Kingdom; Yuliya Tarabalka, GIPSA-Lab, France; Jesus Angulo, MINES Paristech, France; Jocelyn Chanussot, Grenoble Institute of Technology, France; Jon Benediktsson, University of Iceland, Iceland;

TA.L4 Tuesday, September 13, 10:15-12:50

Image Analysis Using Multi-Scale and Hierarchical Methods (Lecture)
Room: 213/215
Chair: Marc Antonini, I3S-CNRS-University of Nice Sophia Antipolis, France

10:15
TA.L4.1 OPTIMIZED BUTTERFLY-BASED LIFTING SCHEME FOR SEMI-REGULAR MESHES
Aymen Kammoun, Frédéric Payan, Marc Antonini, I3S-CNRS-University of Nice Sophia Antipolis, France

10:35
TA.L4.2 HYPERSPECTRAL IMAGE SEGMENTATION USING BINARY PARTITION TREES
Silvia Valero, Universitat Politecnica de Catalunya, Spain; Philippe Salembier, Universitat Politecnica de Catalunya, Spain; Jocelyn Chanussot, Grenoble Institute of Technology, France

11:30
TA.L4.3 TESTING A MULTIVARIATE MODEL FOR WAVELET COEFFICIENTS
Roland Kwitt, University of Salzburg, Austria; Peter Meerwald, University of Salzburg, Austria; Andreas Uhl, Salzburg University, Austria; Geert Verdoolaege, Ghent University, Belgium

11:50
TA.L4.4 3D FACIAL EXPRESSION ANALYSIS BY USING 2D AND 3D WAVELET TRANSFORMS
Sílvia Cristina Dias Pinto, Jesús P. Mena-Chalco, University of Sao Paulo, Brazil; Fabrício Martins Lopes, Federal University of Technology - Parana, Brazil; Luiz Velho, IMPA, Brazil; Roberto Cesar Junior, University of São Paulo, Brazil

12:10
TA.L4.5 DETECTING GESTURES IN MEDIEVAL IMAGES
Joseph Schlecht, University of Heidelberg, Germany; Bernd Carqué, University of Heidelberg, Germany; Björn Ommer, IWR - University of Heidelberg, Germany

12:30
TA.L4.6 POSE ESTIMATION AND BODY SEGMENTATION BASED ON HIERARCHICAL SEARCHING TREE
Shifeng Li, Dalian University of Technology, P.R. China; Huchuan LU, Dalian University of Technology, P.R. China; Ruan, OMRON Corp., Japan; Yen-Wei Chen, Ritsumeikan University, Japan

TA.L5 Tuesday, September 13, 10:15-12:50

Astronomy and Cosmology (Special Session)
Room: The Arc
Chair: Yves Wiaux, EPFL, Switzerland

10:15
TA.L5.1 BAYESIAN MAP DETECTION OF EXTRAGALACTIC POINT SOURCES IN MICROWAVE ASTRONOMICAL IMAGES
Diego Herranz, Instituto de Fisica de Cantabria, Santander, Spain; Francisco Argüeso, Universidad de Oviedo, Spain; Emanuele Salerno, ISTI-CNR, Italy; Ercan Kuruoglu, CNR, Pisa, Italy; Koray Kayabol, INRIA, France

10:35
TA.L5.2 SOURCE SEPARATION IN COSMOLOGY, FROM GLOBAL TO LOCAL MODELS
Jerome Bobin, CEA, France; Florent Sureau, CEA, France; Jean-Luc Starck, CEA, France

11:30
TA.L5.3 DATA AUGMENTATION FOR GALAXY DENSITY MAP RECONSTRUCTION
Francois-Xavier Dupé, CEA, France; Jalal Fadili, GREYC CNRS UMR 6072, ensicaen, France; Jean-Luc Starck, CEA, France

11:50
TA.L5.4 IMAGE PROCESSING CHALLENGES IN WEAK GRAVITATIONAL LENSING
Adam Amara, ETHZ, Switzerland

12:10
TA.L5.5 SCALE INVARIANT IMAGES IN ASTRONOMY THROUGH THE LENS OF MULTIFRACTAL MODELING
Pierre Chainais, INRIA Lille-Nord Europe, France; Véronique Delouille, Royal Observatory of Belgium, Belgium; Jean-François Hochedez, LAT MOS UMR CNRS 8190, France

12:30
TA.L5.6 COMPRESSED SENSING FOR RADIO INTERFEROMETRIC IMAGING: REVIEW AND FUTURE DIRECTION
Jason McEwen, Ecole Polytechnique Federale de Lausanne, Switzerland; Yves Wiaux, EPFL, Switzerland

TA.L6 Tuesday, September 13, 10:15-12:50

High Dynamic Range Imaging and Compression (Lecture)
Room: Hall 300
Chair: Jan Allebach, Purdue University, USA

10:15
TA.L6.1 SPATIALLY ADAPTIVE FILTERING FOR REGISTRATION ARTIFACT REMOVAL IN HDR VIDEO
Stephen Mangiat, University of California, Santa Barbara, USA; Jerry D Gibson, University of California, Santa Barbara, USA

10:35
TA.L6.2 PERCEPTION-BASED HIGH DYNAMIC RANGE VIDEO COMPRESSION WITH OPTIMAL BIT-DEPTH TRANSFORMATION
Yang Zhang, University of Bristol, United Kingdom; Erik Reinhard, University of Bristol, United Kingdom; David Bull, University of Bristol, United Kingdom

11:30
TA.L6.3 A SINGLE ALGORITHM COMBINING EXPOSURE AND FOCUS FUSION
Azhar Sufi, SRI International, USA; David C. Zhang, SRI International Sarnoff, USA; Gooitzen van der Wal, SRI International, USA

11:50
TA.L6.4 SDALA: SIMULTANEOUS DYNAMIC RANGE COMPRESSION AND LOCAL CONTRAST ENHANCEMENT ALGORITHM
Chi-Yi Tsai, Tamkang University, Taiwan

12:10
TA.L6.5 HIGH DYNAMIC RANGE IMAGING UNDER NOISY OBSERVATIONS
Renu Rameshan, Indian Institute of Technology Bombay, India; Subhasis Chaudhuri, Indian Institute of Technology, Bombay, India; Rajbabu Velmurugan, IIT Bombay, India

12:30
TA.L6.6 DE-GHOSTING OF HDR IMAGES WITH DOUBLE-CREDIT INTENSITY MAPPING
Zijian Zhu, Zhengguo Li, Susanto Rahardja, Institute for Infocomm Research, Singapore; Pasi Fränti, University of Eastern Finland, Finland

TA.L7 Tuesday, September 13, 10:15-12:50

Interpolation and Super-resolution (Lecture)
Room: 311/312
Chair: Rafael Molina, Universidad de Granada, Spain

10:15
TA.L7.1 **FAST VIDEO INTERPOLATION/UPSAMPLING USING LINEAR MOTION MODEL**
Kwok-Wai Hung, Wan-Chi Siu, The Hong Kong Polytechnic University, Hong Kong

10:35
TA.L7.2 **PARAMETER ESTIMATION IN BAYESIAN SUPER-RESOLUTION PANSHARPENING USING CONTOURLETS**
Israa Amro, University of Granada, Spain; Javier Mateos, University of Granada, Spain; MIguel Vega, University of Granada, Spain

11:30
TA.L7.3 **LEARNING CONTEXT-AWARE SPARSE REPRESENTATION FOR SINGLE IMAGE SUPER-RESOLUTION**
Min-Chun Yang, Chang-Heng Wang, Ting-Yao Hu, National Taiwan University, Taiwan; Yu-Chiang Frank Wang, Academia Sinica, Taiwan

11:50
TA.L7.4 **MULTI-SCALE NON-LOCAL KERNEL REGRESSION FOR SUPER RESOLUTION**
Haichao Zhang, Northwestern Polytechnical University, USA; Jianchao Yang, UIUC, USA; Yanning Zhang, Northwestern Polytechnical University, P.R. China; Thomas S Huang, University of Illinois at Urbana-Champaign, USA

12:10
TA.L7.5 **TWO-STEP SUPER-RESOLUTION TECHNIQUE USING BOUNDED TOTAL VARIATION AND BISQUARE M-ESTIMATOR UNDER LOCAL ILLUMINATION CHANGES**
Mohamed M. Fouad, Military Technical College, Egypt; Richard Dansereau, Carleton University, Canada; Anthony Whitehead, Carleton Universty, Canada

12:30
TA.L7.6 **DISCRETE INFINITY HARMONIC FUNCTIONS: TOWARDS A UNIFIED INTERPOLATION FRAMEWORK ON GRAPHS**
Mahmoud Ghoniem, Abderrahim Elmoataz, Olivier Lezoray, Université de Caen Basse-Normandie, France

TA.L8 Tuesday, September 13, 10:15-12:50

Tomographic Imaging (Lecture)
Room: 314/316
Chair: Birsen Yazici, Rensselaer Polytechnic Institute, USA

10:15
TA.L8.1 **SPARSE RECONSTRUCTION METHODS FOR FLUORESCENCE DIFFUSE OPTICAL TOMOGRAPHY**
An Jin, Rensselaer Polytechnic Institute, USA; Birsen Yazici, Rensselaer Polytechnic Institute, USA

10:35
TA.L8.2 **ON THE EFFICIENCY OF PROXIMAL METHODS IN CBCT AND PET**
Sandrine Anthoine, Université Aix-Marseille, LATP, CNRS, France; Jean Francois Aujol, Université Bordeaux 1, IMB, France; Yannick Boursier, Université Aix Marseille, CPPM, CNRS et IN2P3, France; Clothilde Mélot, Aix Marseille University, LATP / CNRS, France

11:30
TA.L8.3 **REGULARIZED POLYCHROMATIC RECONSTRUCTION FOR TRANSMISSION TOMOGRAPHY**
Kwang Eun Jang, Samsung Advanced Institute of Technology, Korea

11:50
TA.L8.4 **A DISCRETE-CONTINUOUS BAYESIAN MODEL FOR EMISSION TOMOGRAPHY**
Mame Diarra Fall, Université Paris-Sud 11, France; Eric Barat, CEA, France; Claude Comtat, Service Hospitalier Frédéric Joliot, France; Thomas Dautremer, CEA, France; Thierry Montagu, CEA, France; Ali Mohammad-Djafari, Centre national de la recherche scientifique (CNRS), France;

12:10
TA.L8.5 **BAYESIAN DATA FUSION AND INVERSION IN X-RAY MULTI-ENERGY COMPUTED TOMOGRAPHY**
Caifang Cai, Commissariat a Energie Atomique, France; Ali Mohammad-Djafari, Centre national de la recherche scientifique (CNRS), France; Samuel Legoupil, Commissariat a Energie Atomique (CEA), France; Thomas Rodet, Universit, France

12:30
TA.L8.6 **IMPROVED KERNEL-BASED LIMITED-VIEW CT RECONSTRUCTION VIA ANISOTROPIC DIFFUSION**
Jun Feng, Sichuan University, Chengdu University of Technology, P.R. China; Jian-Zhou Zhang, Sichuan University, P.R. China

TA.PA Tuesday, September 13, 10:15-12:50

Statistical-Model-Based Processing and Tracking (Poster)
Room: Grand Hall 2
Chair: Rudolf Mester, Goethe University, Frankfurt, Germany

10:15
TA.PA.1 EFFICIENT JOINT POISSON-GAUSS RESTORATION USING MULTI-FRAME L2-RELAXED-L0 ANALYSIS-BASED SPARSITY
Elena Gil-Rodrigo, Javier Portilla, Consejo Superior de Investigaciones Científicas, Spain; David Miraut, Universidad Rey Juan Carlos, Spain; Ricardo Suarez-Mesa, Universidad Rey Juan Carlos, Spain

10:15
TA.PA.2 IMAGE-BASED OBJECT DETECTION UNDER VARYING ILLUMINATION IN ENVIRONMENTS WITH SPECULAR SURFACES
Werner Maier, Technische Universität München, Germany; Michael Eschey, Technische Universität München, Germany; Eckehard Steinbach, Munich University of Technology, Germany

10:15
TA.PA.3 HYBRID PARAMETRIC-NONPARAMETRIC MODELING WITH APPLICATION TO NATURAL IMAGE UPSAMPLING
Guangtao Zhai, Xiaolin Wu, McMaster University, Canada

10:15
TA.PA.4 BATCH-INCREMENTAL PRINCIPLE COMPONENT ANALYSIS WITH EXACT MEAN UPDATE
Guifang Duan, Yen-Wei Chen, Ritsumeikan University, Japan

10:15
TA.PA.5 MODEL SHARED SEMI-SUPERVISED LEARNING FOR MULTI-LABEL IMAGE
Xi Liu, Zhiping Shi, Zhongzhi Shi, Institute of Computing Technology, Chinese Academy of Sciences, P.R. China

10:15
TA.PA.6 A METHOD FOR DISCONTINUOUS NEURITE RECONSTRUCTION BASED ON DIFFUSION TENSOR, HESSIAN EIGENVECTOR, AND DIFFUSED GRADIENT VECTOR FIELDS
HeeChang Kim, Universite Paris Descartes, Korea; Georges Stamon, Universite Paris Lipade-Sip, France; Auguste Genovesio, Institut Pasteur Korea, Korea

10:15
TA.PA.7 BOOSTING SEGMENTATION RESULTS BY CONTOUR RELAXATION
Alvaro Guevara, Christian Conrad, Rudolf Mester, Goethe University, Frankfurt, Germany

10:15
TA.PA.8 IMPROVED DCT COEFFICIENT DISTRIBUTION MODELING FOR H.264-LIKE VIDEO CODERS BASED ON BLOCK CLASSIFICATION
Nejat Kamaci, Ghassan AlRegib, Georgia Institute of Technology, USA

10:15
TA.PA.9 FLEXIBLE TRAJECTORY MODELING USING A MIXTURE OF PARAMETRIC MOTION FIELDS FOR VIDEO SURVEILLANCE
Jacinto C. Nascimento, Instituto de Sistemas e Robotica, Portugal; Jorge S. Marques, João Lemos, Instituto Superior Técnico, Portugal

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10:15
TA.PA.10 FAST INCREMENTAL METHOD FOR MATRIX COMPLETION: AN APPLICATION TO TRAJECTORY CORRECTION
Ricardo Cabral, Carnegie Mellon University, USA; João Paulo Costeira, I.S.T. - Technical U. Lisbon / I.S.R. Lisbon, Portugal; Fernando De la Torre, Carnegie Mellon University, USA; Alexandre Bernardino, I.S.T. - Technical U. Lisbon / I.S.R. Lisbon, Portugal

10:15
TA.PA.11 LIVER TUMOR DETECTION IN CT IMAGES BY ADAPTIVE CONTRAST ENHANCEMENT AND THE EM/MPM ALGORITHM
Yu Masuda, University of Ritsumeikan, Japan; Wei Xiong, Institute for Infocomm Research, Singapore

10:15
TA.PA.12 RANSAC-LEL: AN OPTIMIZED VERSION WITH LEAST ENTROPY LIKE ESTIMATORS
Cosimo Distante, CNR, Italy; Giovanni Indiveri, University of Salento, Italy

10:15
TA.PA.13 DISCRIMINATIVE MODEL SELECTION USING A MODIFIED BAYESIAN CRITERION: APPLICATION TO TRAJECTORY MODELING
Jacinto C. Nascimento, Instituto de Sistemas e Robotica, Portugal; Jorge S. Marques, Instituto Superior Técnico, Portugal; Mario A. T. Figueiredo, Instituto Superior Técnico, Portugal

10:15
TA.PA.14 VISUAL TRACKING AND DYNAMIC LEARNING ON THE GRASSMANN MANIFOLD WITH INFERENCE FROM A BAYESIAN FRAMEWORK AND STATE SPACE MODELS
Zulfiqar Khan, Chalmers University of Technology, Sweden; Irene Y. H. Gu, Chalmers University of Technology, Sweden

10:15
TA.PA.15 BAYESIAN VISUAL SURVEILLANCE: A MODEL FOR DETECTING AND TRACKING A VARIABLE NUMBER OF MOVING OBJECTS
Carlos R. del-Blanco, Universidad Politécnica de Madrid, Spain; Fernando Jaureguizar, Universidad Politécnica de Madrid, Spain; Narciso García, Universidad Politécnica de Madrid, Spain

10:15
TA.PA.16 HUMAN IDENTIFICATION USING BODY PRIOR AND GENERALIZED EMD
Lianyang Ma, Shanghai Jiao Tong University, P.R. China; Xiaokang Yang, Shanghai Jiao Tong University, P.R. China; Yi Xu, Shanghai Jiao Tong University, P.R. China; Jun Zhu, Shanghai Jiao Tong University, P.R. China

TA.PB Tuesday, September 13, 10:15-12:50

Filtering (Poster)
Room: Grand Hall 2
Chair: Aleksandra Pižurica, Ghent University, Belgium

10:15
TA.PB.1 REGION-BASED THRESHOLDING USING COMPONENT TREE
Alexandre Gonçalves Silva, Santa Catarina State University, Brazil

10:15
TA.PB.2 INTERACTIVE COLLECTION OF TRAINING SAMPLES FROM THE MAX-TREE STRUCTURE
Georgios K Ouzounis, European Commission, Joint Research Centre, Italy; Lionel Gueguen, JRC - European Commission, Italy

10:15
TA.PB.3 A METHOD TO DETERMINE THE SIZE OF THE STRUCTURING ELEMENT IN MORPHOLOGICAL CORRECTION OF NON-UNIFORM ILLUMINATION
Juan Lorenzo-Ginori, Universidad Central Marta Abreu de Las Villas, Cuba

10:15
TA.PB.4 THREE KINDS OF COLOR TOTAL-VARIATION SEMI-NORMS AND ITS APPLICATION TO COLOR-IMAGE DENOISING
Takahiro Saito, Kanagawa University, Japan; Yousuke Takagaki, Kanagawa University, Japan; Takashi Komatsu, Kanagawa University, Japan

10:15
TA.PB.5 FAST ALGORITHM FOR TOTAL VARIATION MINIMIZATION
Masaru Sakurai, Satoshi Kiriyama, Tomio Goto, Satoshi Hirano, Nagoya Institute of Technology, Japan

10:15
TA.PB.6 STRUCTURAL-CONTEXT-PRESERVING IMAGE ABSTRACTION BY USING SPACE-FILLING CURVE BASED ON MINIMUM SPANNING TREE
Takanori Koga, Tokuyama College of Technology, Japan; Noriaki Suetake, Yamaguchi University, Japan

10:15
TA.PB.7 COLOR SPACE INFLUENCE ON MEAN SHIFT FILTERING
Ting Li, Institut National des Sciences Appliquées de Lyon, France; Thomas Grenier, CREATIS, CNRS UMR 5220, Inserm U, France; Hugues Benoit-Cattin, CREATIS, CNRS UMR 5515, Inserm U, France

10:15
TA.PB.8 ADAPTIVE GRID PATTERN ARTIFACT REDUCTION IN RADIOGRAPHY IMAGING BASED ON THE SIGNIFICANT-SIGNAL BANDWIDTH
Dong Sik Kim, Hankuk University of Foreign Studies, Korea; Sanggyun Lee, DRTECH Co., Korea

10:15
TA.PB.9 A NEW INFRARED IMAGE FUSION METHOD USING EMPIRICAL MODE DECOMPOSITION AND INPAINTING
Yu-Qiu Sun, Yangtze University, P.R. China; Min-Sung Koh, Esteban Rodriguez-Marek, Claudio Talarico, Eastern Washington University, USA

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10:15
TA.PB.10 IMPROVED OPTIMAL SEAM SELECTION BLENDING FOR FAST VIDEO STITCHING OF VIDEOS CAPTURED FROM FREELY MOVING DEVICES
Motaz El-Saban, Microsoft Research - Cairo Innovation Lab, Egypt; Mostafa Izz, Cairo University, Egypt; Ayman Kaheel, Microsoft Research, Egypt; Mahmoud Refaat, Microsoft Research, Egypt

10:15
TA.PB.11 FAST AND ROBUST ISOTROPIC SCALING ITERATIVE CLOSEST POINT ALGORITHM
Ce Li, Xi'an Jiaotong University, P.R. China; Jianru Xue, Xi'an Jiaotong University, P.R. China; Nanning Zheng, Xi'an Jiaotong University, P.R. China; Shaoyi Du, Xi'an Jiaotong University, P.R. China; Jihua Zhu, Xi'an Jiaotong University, P.R. China; Zhiqiang Tian, Xi'an Jiaotong University, P.R. China;

10:15
TA.PB.12 FUSION OF PANCHROMATIC AND MULTISPECTRAL IMAGES USING MULTISCALE DUAL BILATERAL FILTER
Jianwen Hu, Hunan University, P.R. China; Shutao Li, Hunan University, P.R. China

10:15
TA.PB.13 VIDEO MOSAICING USING A MUTUAL INFORMATION-BASED MOTION ESTIMATION PROCESS
Amaury Dame, CNRS, IRISA, France; Eric Marchand, IRISA - INRIA Rennes, France

10:15
TA.PB.14 SEAM CARVING IN WAVELET TRANSFORM DOMAIN
Kazu Mishiba, Masaaki Ikehara, Keio University, Japan

10:15
TA.PB.15 VARIABLE REMAPPING OF IMAGES FROM VERY DIFFERENT SOURCES
Wei Zhang, SAIC, USA; Rama Chellappa, University of Maryland, USA

TA.PC Tuesday, September 13, 10:15-12:50

Image Processing: Analysis, Modeling, Enhancement (Poster)
Room: Grand Hall 2
Chair: Bart Goossens, Ghent University, Belgium

10:15
TA.PC.1 BAYESIAN STEREOSCOPIC IMAGE RESOLUTION ENHANCEMENT
Jing Tian, Li Chen, Wuhan University of Science and Technology, P.R. China

10:15
TA.PC.2 POST PROCESSING FOR BLOCKING ARTIFACT REDUCTION
Seok Bong Yoo, Kyuha Choi, Jong Beom Ra, KAIST, Korea

10:15
TA.PC.3 SEPARABLE BILATERAL NONLOCAL MEANS
Yong Sun Kim, Hwasup Lim, Ouk Choi, Keechang Lee, James D. K. Kim, Changyeong Kim, Samsung Advanced Institute of Technology, Korea

10:15
TA.PC.4 MULTI-RESOLUTION MISSING DATA INTERPOLATION IN SST IMAGE SERIES
Sileye Oumar Ba, Télécom Bretagne, France; Thomas Corpetti, CNRS-LIAMA, P.R. China; Ronan Fablet, Institut Telecom - Telecom Bretagne, France

10:15
TA.PC.5 SAME FRAME RATE IR TO ENHANCE VISIBLE VIDEO CONFERENCE LIGHTING
Chen Wu, Google Inc., USA; Ramin Samadani, Hewlett-Packard Laboratories, USA; Prabath Gunawardane, University of California, Santa Cruz, USA

10:15
TA.PC.6 AN AUGMENTED LAGRANGIAN METHOD FOR FAST GRADIENT VECTOR FLOW COMPUTATION
Jianfeng Li, Wangmeng Zuo, Xiaofei Zhao, Harbin Institute of Technology, P.R. China; David Zhang, The Hong Kong Polytechnic University, Hong Kong

10:15
TA.PC.7 HIGH FREQUENCY COMPENSATED FACE HALLUCINATION
So Sasatani, University of Ritsumeikan, Japan

10:15
TA.PC.8 DETAIL PRESERVING MULTIPLE BIT-DEPTH IMAGE REPRESENTATION AND CODING
Takao Jinno, Masahiro Okuda, The University of Kitakyushu, Japan; Nicola Adami, University of Brescia, Italy

10:15
TA.PC.9 RECOVERING MISSING COEFFICIENTS IN DCT-TRANSFORMED IMAGES
Shujun Li, University of Konstanz, Germany; Andreas Karrenbauer, University of Konstanz, Germany; Dietmar Saupe, University of Konstanz, Germany; C.-C. Jay Kuo, University of Southern California, USA

10:15
TA.PC.10 WASSERSTEIN REGULARIZATION OF IMAGING PROBLEM
Julien Rabin, École Normale Supérieure de Cachan, France; Gabriel Peyré, CNRS, Université Paris-Dauphine, France

(Continued on next page.)

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10:15
TA.PC.11 AN ADAPTIVE TOTAL VARIATION METHOD FOR SPECKLE REDUCTION IN MEDICAL ULTRASOUND IMAGING
Meriem Hacini, Laboratoire d' Automatique et de Robotique, Université de Constantine, Algeria; Hachouf Fella, Constantine University, Algeria

10:15
TA.PC.12 A MONOTONIC CONSTRAINED REGRESSION FRAMEWORK FOR HISTOGRAM EQUALIZATION AND SPECIFICATION
Lu-Hung Chen, Yao-Hsiang Yang, Research Center for Information Technology Innovation, Acadamia Sinica, Taiwan; Chu-Song Chen, Institute of Information Science, Academia Sinica, Taiwan

10:15
TA.PC.13 INTERACTIVE MOTION DEBLURRING USING LIGHT STREAKS
Binh-Son Hua, Kok-Lim Low, National University of Singapore, Singapore

10:15
TA.PC.14 FUSION-BASED RESTORATION OF THE UNDERWATER IMAGES
Codruta Ancuti, Cosmin Ancuti, Tom Haber, Philippe Bekaert, Hasselt University, Belgium

10:15
TA.PC.15 CHI-SQUARE UNBIASED RISK ESTIMATE FOR DENOISING MAGNITUDE MR IMAGES
Florian Luisier, Harvard University, USA; Patrick Wolfe, Harvard University, USA

TA.PD Tuesday, September 13, 10:15-12:50

Biomedical Image Processing and Applications (Poster)
Room: Grand Hall 2
Chair: Alexander Behrens, RWTH Aachen University, Germany

10:15
TA.PD.1 COMPUTER-AIDED CATARACT DETECTION USING ENHANCED TEXTURE FEATURES ON RETRO-ILLUMINATION LENS IMAGES
Xinting Gao, Institure for Infocomm Research, Singapore; Huiqi Li, Institute for Infocomm Research (I2R), Singapore; Joo-Hwee Lim, Institute for Infocomm Research, Singapore; Tien Yin Wong, Singapore Eye Research Centre, Singapore

10:15
TA.PD.2 3D PROTEIN-PROTEIN DOCKING USING SHAPE COMPLEMENTARITY AND FAST ALIGNMENT
Apostolos Axenopoulos, University of Thessaly, Department of Computer & Communication Engineering, Greece; Petros Daras, Informatics & Telematics Institute, Greece; Georgios Papadopoulos, University of Thessaly - Department of Biochemistry & Biotechnology, Greece; Elias Houstis, University of Thessaly, Department of Computer & Communication Engineering, Greece

10:15
TA.PD.3 DETECTION OF PELVIC FRACTURES USING GRAPH CUTS AND CURVATURES
Ananda Chowdhury, Jadavpur University, India; Joseph Burns, University of California, Irvine, USA; Bhaskar Sen, Jadavpur University, India; Arka Mukherjee, Jadavpur University, India; Jianhua Yao, National Institutes of Health, USA; Ronald Summers, National Institutes of Health,

10:15
TA.PD.4 AUTOMATED NUCLEI CLUMP DECOMPOSITION FOR IMAGE ANALYSIS IN NEURONAL CELL FLUORESCENT MICROSCOPY
Wei Xiong, Institute for Infocomm Research, Singapore; Shue Ching Chia, Institute of Infocomm Research, A*STAR, Singapore; Joo-Hwee Lim, Institute for Infocomm Research, Singapore

10:15
TA.PD.5 AUTOMATIC LABELING AND CLASSIFICATION OF BRAIN CT IMAGES
Tianxia Gong, Shimiao Li, Jie Wang, School of Computing, National University of Singapore, Singapore; Chew Lim Tan, National University of Singapore, Singapore; Boon Chuan Pang, Tchoyoson Lim, Cheng Kiang Lee, National Neuroscience Institute, Tan Tock Seng Hospital, Singapore; Qi Tian, Institute for Infocomm Research, Singapore; Zhuo Zhang, Institute for Infocomm Research, Singapore;

10:15
TA.PD.6 HISTOGRAM ANALYSIS OF CT SCANS FOR PATIENTS WITH POST-MASTECTOMY LYMPHEDEMA
Maxine Tan, Vrije Universiteit Brussel, Belgium; Rudi Deklerck, VUB-ETRO, Belgium; An Tassenoy, Universitair Ziekenhuis Brussel (UZ Brussel), Belgium; Jan P.H. Cornelis, Vrije Universiteit Brussel, Belgium; Johan de Mey, Nico Buls, Universitair Ziekenhuis Brussel (UZ Brussel), Belgium;

10:15
TA.PD.7 A GPU ACCELERATED INTERACTIVE INTERFACE FOR EXPLORATORY FUNCTIONAL CONNECTIVITY ANALYSIS OF FMRI DATA
Anders Eklund, Linköping University, Sweden; Ola Friman, Fraunhofer MeVis, Germany; Mats Andersson, Linköping University, Sweden; Hans Knutsson, Linköping University, Sweden

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(Continued from previous page.)

10:15
TA.PD.8 APPLICATION OF COMPUTATIONAL ANATOMY METHODS TO MRI DATA FOR THE DIAGNOSIS OF ALZHEIMER'S DISEASE
Jan Veerman, Octavian Soldea, Pratik Sahindrakar, Philips Research, The Netherlands; Yijun Wan, Eindhoven University of Technology, The Netherlands; Radu Jasinschi, Philips Research, The Netherlands

10:15
TA.PD.9 MEDICAL IMAGE DENOISING USING KERNEL RIDGE REGRESSION
Dinh Hoan Trinh, Université Paris 13, France; Marie Luong, L2TI, France; Jean-Marie Rocchisani, Université Paris 13, France; Duong Pham, VAST, Vietnam; Francoise Dibos, LAGA, Universite Paris 13, France

10:15
TA.PD.10 EXTENDED WHOLE MESH DEFORMATION MODEL: FULL 3D PROCESSING
Przemyslaw Lenkiewicz, Max Planck Institute for Psycholinguistics, The Netherlands; Manuela Pereira, University of Beira Interior, Portugal; Mario M. Freire, University of Beira Interior, Portugal; Jose Fernandes, Microsoft Portugal, Portugal

10:15
TA.PD.11 AUTOMATIC BOUNDARY DETECTION AND SYMMETRY CALCULATION IN DERMOSCOPY IMAGES OF SKIN LESIONS
Nikolay Metodiev Sirakov, Texas A&M University-Commerce, USA; Mutlu Mete, Texas A&M University-Commerce, USA; Nara Chakrader, Texas A&M University-Commerce, USA

10:15
TA.PD.12 CANCER DETECTION FROM BIOPSY IMAGES USING PROBABILISTIC AND DISCRIMINATIVE FEATURES
Atsushi Yaguchi, Tokyo University of Science, Japan; Takumi Kobayashi, Kenji Watanabe, Kenji Iwata, National Institute of Advanced Industrial Science and Technology, Japan; Tadaaki Hosaka, Tokyo University of Science, Japan; Nobuyuki Otsu, National Institute of Advanced Industrial Science and Technology, Japan;

10:15
TA.PD.13 A ROBUST FEATURE SELECTION APPROACH USING LOW RANK MATRICES FOR BREAST TUMORS IN ULTRASONIC IMAGES
Tao Wan, Carnegie Mellon University, USA; Renjie Liao, Beihang University, P.R. China; Zengchang Qin, Carnegie Mellon University, USA

10:15
TA.PD.14 AN EFFECTIVE METHOD OF SEARCHING FOR SUBREGIONS IN CHROMOSOME IMAGES
Toru Abe, Cyberscience Center, Tohoku University, Japan; Chieko Hamada, Tohoku University, Japan

10:15
TA.PD.15 A 3D HUMAN TEETH DATABASE CONSTRUCTION BASED ON A POINT-BASED SHAPE REGISTRATION
Dongqing Chen, University of Louisville, USA

10:15
TA.PD.16 AN ENSEMBLE-BASED MICROANEURYSM DETECTOR FOR RETINAL IMAGES
Bálint Antal, University of Debrecen, Hungary; Andras Hajdu, University of Debrecen, Hungary

TA.PE Tuesday, September 13, 10:15-12:50

Video Coding and Motion Estimation (Poster)
Room: Grand Hall 2
Chair: Antonio Ortega, USC, USA

10:15
TA.PE.1 OPTIMAL RATE ADAPTATION WITH INTEGER LINEAR PROGRAMMING IN THE SCALABLE EXTENSION OF H.264/AVC
Livio Lima, University of Brescia, Italy; Massimo Mauro, University of Brescia, Italy; Tea Anselmo, STMicroelectronics, Italy; Daniele Alfonso, STMicroelectronics, Italy; Riccardo Leonardi, University of Brescia, Italy

10:15
TA.PE.2 RATE-DISTORTION ANALYSIS OF SUPER-RESOLUTION IMAGE/ VIDEO DECODING
Keita Takahashi, The University of Tokyo, Japan; Takeshi Naemura, Tokyo University, Japan; Masayuki Tanaka, Tokyo Institute of Technology, Japan

10:15
TA.PE.3 TEMPORAL TRAJECTORY FILTERING FOR BI-DIRECTIONAL PREDICTED FRAMES
Marko Esche, Andreas Krutz, Alexander Glantz, Thomas Sikora, Technische Universität Berlin, Germany

10:15
TA.PE.4 CHROMA INTRA PREDICTION USING TEMPLATE MATCHING WITH RECONSTRUCTED LUMA COMPONENTS
Chuohao Yeo, Yih Han Tan, Zhengguo Li, Susanto Rahardja, Institute for Infocomm Research, Singapore

10:15
TA.PE.5 PRACTICAL RATE CONTROL ALGORITHM FOR TEMPORAL SCALABILITY IN SCALABLE VIDEO CODING
Jiaying Liu, Peking University, P.R. China; Yongjin Cho, University of Southern California, USA; Zongming Guo, Peking University, P.R. China

10:15
TA.PE.6 INTRA-WZ QUANTIZATION MISMATCH IN DISTRIBUTED VIDEO CODING
Jürgen Slowack, Ghent University, Belgium; Jozef Skorupa, Ghent University - IBBT, Belgium; Peter Lambert, Ghent University - IBBT, Belgium; Rik Van de Walle, Ghent University - IBBT, Belgium; Nikos Deligiannis, Vrije Universiteit Brussel – IBBT, Belgium; Adrian Munteanu, Vrije Universiteit Brussel, Belgium

10:15
TA.PE.7 SEGMENTATION-BASED MOTION COMPENSATION FOR ENHANCED VIDEO CODING
Simone Milani, Giancarlo Calvagno, University of Padova, Italy

10:15
TA.PE.8 VISUAL PERCEPTION BASED LAGRANGIAN RATE DISTORTION OPTIMIZATION FOR VIDEO CODING
Xi Wang, Institute Of Computing Technology, Chinese Academy of Sciences, P.R. China; Li Su, Qingming Huang, Chunxi Liu, Graduate University of Chinese Academy of Sciences, CAS, P.R. China

(Continued on next page.)

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10:15
TA.PE.9 SSIM-INSPIRED DIVISIVE NORMALIZATION FOR PERCEPTUAL VIDEO CODING
Shiqi Wang, Institute of Digital Media, School of Electronic Engineering and Computer Science, Peking University, Canada; Abdul Rehman, Zhou Wang, University of Waterloo, Canada; Siwei Ma, University of Southern California, USA; Wen Gao, ICT-ISVISION Joint R&D Laboratory for Face Recognition, CAS, P.R. China

10:15
TA.PE.10 COMBINING OPEN- AND CLOSED-LOOP ARCHITECTURES FOR H.264/AVC-TO-SVC TRANSCODING
Sebastiaan Van Leuven, Jan De Cock, Glenn Van Wallendael, Rik Van de Walle, Ghent University - IBBT, Belgium; Rosario Garrido-Cantos, University of Castilla-La Mancha, Spain; Jose Luis Martínez, University Complutense, Spain; Pedro Cuenca, University of Castill La Mancha, Spain;

10:15
TA.PE.11 ADAPTIVE INTRA MODES REDUCTION BY CLUSTERING FOR H.264/AVC
Weijia Zhu, Wenpeng Ding, Yunhui Shi, Yanfeng Sun, Baocai Yin, Beijing University of Technology, P.R. China

10:15
TA.PE.12 EFFICIENT P-FRAME COMPLEXITY ESTIMATION FOR FRAME LAYER RATE CONTROL OF H.264/AVC
Kairan Sun, Bo Yan, Fudan University, P.R. China

10:15
TA.PE.13 DECODER SIDE TRUE MOTION ESTIMATION FOR VERY LOW BITRATE B-FRAME CODING
Hasan F Ates, Isik University, Istanbul, Turkey; Burak Cizmeci, Technische Universitaet Muenchen, Germany

10:15
TA.PE.14 MOTION COMPENSATED PREDICTION USING PARTIAL MESH GENERATION
Han Huang, Beijing Jiaotong University, P.R. China; John W. Woods, Rensselaer Polytechnic Institute, USA; Yao Zhao, Beijing Jiaotong University, P.R. China

10:15
TA.PE.15 HIGH DEFINITION VIDEO INTRA-ONLY CODING BASED ON NODE-CELL MACROBLOCK PIXEL STRUCTURE AND 2-D INTERLEAVED DCT
Dong Zheng, Demin Wang, Liang Zhang, Communications Research Centre, Canada

10:15
TA.PE.16 MODE DEPENDENT DCT/DST FOR INTRA PREDICTION IN BLOCK-BASED IMAGE/VIDEO CODING
Ankur Saxena, Samsung Telecommunications America, USA;
Felix Fernandes, Samsung Electronics Co., Ltd, USA

TA.PF Tuesday, September 13, 10:15-12:50

Color/Multispectral Imaging and Rendering (Poster)
Room: Grand Hall 2
Chair: Xin Li, West Virginia University, USA

10:15
TA.PF.1 MODELING AND APPLICATION OF COLOR NOISE PERCEPTION DEPENDENT ON BACKGROUND COLOR AND SPATIAL FREQUENCY
Makoto Shohara, Japan Advanced Institute of Science and Technology, Japan; Kazunori Kotani, JAIST, Japan

10:15
TA.PF.2 COMPRESSIVE DEMOSAICING FOR PERIODIC COLOR FILTER ARRAYS
Mohammad Aghagolzadeh, Abdolreza Abdolhosseini Moghadam, Michigan State University, USA; Mrityunjay Kumar, Eastman Kodak Company, USA; Hayder Radha, Michigan State University, USA

10:15
TA.PF.3 COLOR DISTRIBUTION MATCHING USING A WEIGHTED SUBSPACE DESCRIPTOR
Kenjiro Sugimoto, Waseda University, Japan; Sei-ichiro Kamata, Waseda university, Japan

10:15
TA.PF.4 OPTIMUM FEATURES DISCOVERY BY CRITERIA MINIMUM-REDUNDANCY-MAXIMUM-RELEVANCE
Dragos Bratasanu, Romanian Space Agency, Romania

10:15
TA.PF.5 REAL-TIME VISUAL SALIENCY BY DIVISION OF GAUSSIANS
Ioannis Katramados, TRW Conekt, United Kingdom; Toby Breckon, Cranfield University, United Kingdom

10:15
TA.PF.6 NEURAL GRAY EDGE: IMPROVING GRAY EDGE ALGORITHM USING NEURAL NETWORK
Mohsen Ebrahimi moghaddam, Shahid beheshti university, Iran

10:15
TA.PF.7 DIMENSIONALITY REDUCTION OF HYPERSPECTRAL IMAGES WITH WAVELET BASED EMPIRICAL MODE DECOMPOSITION
Esra Tunc Gormus, Nishan Canagarajah, University of Bristol, United Kingdom; Alin M Achim, University of Bristol, United Kingdom

10:15
TA.PF.8 REMOVING SHADOWS FROM IMAGES USING COLOR AND NEAR-INFRARED
Neda Salamati, Arthur Germain, Sabine Süsstrunk, EPFL, Switzerland

10:15
TA.PF.9 INVERSE HALFTONING WITH NONLOCAL REGULARIZATION
Xin Li, West Virginia University, USA

10:15
TA.PF.10 ELECTRO-PHOTOGRAPHIC MODEL BASED STOCHASTIC CLUSTERED-DOT HALFTONING WITH DIRECT BINARY SEARCH
Puneet Goyal, Madhur Gupta, Purdue University, USA; Carl Staelin, Mani Fischer, Hewlett-Packard Laboratories, Israel; Omri Shacham, Hewlett-Packard Indigo, Israel; Tamar Kashti, Hewlett-Packard Indigo, Israel; Jan Allebach, Purdue University, USA;

(Continued on next page.)

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10:15
TA.PF.11 HIGH RESOLUTION SUBPIXEL AND SUBFRAME RENDERING FOR COLOR FLATPANEL AND PROJECTOR DISPLAYS
Keigo Hirakawa, University of Dayton, USA; Jing Gu, Kingway Technology Shanghai Ltd., P.R. China

10:15
TA.PF.12 COLOR QUANTIZATION USING C-MEANS CLUSTERING ALGORITHMS
M. Emre Celebi, Louisiana State University in Shreveport, USA; Quan Wen, Juan Chen, University of Electronic Science and Technology of China, P.R. China

10:15
TA.PF.13 DESIGN OF COLOR SCREEN SETS FOR ROBUSTNESS TO COLOR PLANE MISREGISTRATION
Jin-Young Kim, Yung-Yao Chen, Purdue University, USA; Mani Fischer, Hewlett-Packard Laboratories, Israel; Omri Shacham, Hewlett-Packard Indigo, Israel; Carl Staelin, Hewlett-Packard Laboratories, Israel; Jan Allebach, Purdue University, USA

TA.PG Tuesday, September 13, 10:15-12:50

Applications of Image & Video Interpretation and Understanding (Poster)
Room: Grand Hall 2
Chair: Narciso García, Universidad Politécnica de Madrid, Spain

10:15
TA.PG.1 FACE RECOGNITION USING MAXIMUM LOCAL FISHER DISCRIMINANT ANALYSIS
Lei Wang, Xidian University, P.R. China; Hongbing Ji, School of Electronic Engineering, Xidian University, P.R. China; Ya Shi, Xidian University, P.R. China

10:15
TA.PG.2 A NON-TEMPORAL TEXTURE DRIVEN APPROACH TO REAL-TIME FIRE DETECTION
Audrey Chenebert, Toby Breckon, Anna Gaszczak, Cranfield University, United Kingdom

10:15
TA.PG.3 TEMPORAL TRIMAP PROPAGATION FOR VIDEO MATTING USING INFERENTIAL STATISTICS
Muhammad Sarim, University of Surrey, United Kingdom

10:15
TA.PG.4 A BIOLOGICALLY INSPIRED SYSTEM FOR FAST HANDWRITTEN DIGIT RECOGNITION
Zhe Wang, Yaping Huang, Siwei Luo, Liang Wang, Beijing Jiaotong University, P.R. China

10:15
TA.PG.5 JOINT OPTIMIZATION OF BACKGROUND SUBTRACTION AND OBJECT DETECTION FOR NIGHT SURVEILLANCE
Congcong Li, Cornell University, USA; Chih-Wei Lin, Shiaw-Shian Yu, Industrial Technology Research Institute, Taiwan; Tsuhan Chen, Cornell University, USA

10:15
TA.PG.6 AUTOMATIC BANDWIDTH ESTIMATION STRATEGY FOR HIGH-QUALITY NON-PARAMETRIC MODELING BASED MOVING OBJECT DETECTION
Carlos Cuevas, Narciso García, Universidad Politécnica de Madrid, Spain

10:15
TA.PG.7 FACE RECOGNITION THROUGH REGIONAL WEIGHT ESTIMATION
Daniel Yule, Liang Chen, University of Northern British Columbia, Canada

10:15
TA.PG.8 ULTRASOUND VIDEO ANALYSIS FOR UNDERSTANDING INFANT BREASTFEEDING
Gianluca Monaci, Philips research, The Netherlands; Mike Woolridge, University of Leeds, United Kingdom

10:15
TA.PG.9 EXPLOITING FEATURE CORRESPONDENCE CONSTRAINTS FOR IMAGE RECOGNITION
Linbo Wang, Nanjing University, P.R. China; Feng Tang, Hewlett-Packard Laboratories, USA; Yanwen Guo, Nanjing University, P.R. China; Suk Hwan Lim, HP Labs, USA; Nelson L. Chang, Hewlett-Packard Laboratories, USA

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10:15
TA.PG.10 SPARSE COST-SENSITIVE CLASSIFIER WITH APPLICATION TO FACE RECOGNITION
Jiangyue Man, Xiaoyuan Jing, Nanjing University of Posts & Telecommunications, P.R. China; David Zhang, The Hong Kong Polytechnic University, Hong Kong; Chao Lan, Nanjing University of Posts and Telecommunications, P.R. China

10:15
TA.PG.11 HIERARCHICAL BAG-OF-FEATURES FOR HAND POSTURE RECOGNITION
Yuelong Chuang, Zhejiang University, P.R. China

10:15
TA.PG.12 CONTEXT-DRIVEN MOVING OBJECT DETECTION IN AERIAL SCENES WITH USER INPUT
Christophe Guilmart, ENS Cachan, France; Stéphane Herbin, Onera, France; Patrick Perez, Technicolor, France

10:15
TA.PG.13 HUMAN FACE CLASSIFICATION BASED ON LOCALIZED BLUR DESCRIPTORS
Abdul Adeel Mohammed, University of Waterloo, Canada; Jonathan Wu, University of Windsor, Canada; Maher Sid-Ahmed, University of Windsor, Canada

10:15
TA.PG.14 COMBINING GLOBAL AND LOCAL FEATURES FOR FOOD IDENTIFICATION IN DIETARY ASSESSMENT
Marc Bosch, Fengqing Zhu, Nitin Khanna, Carol Boushey, Ed Delp, Purdue University, USA

10:15
TA.PG.15 HUMAN DETECTION USING MULTI-CAMERA AND 3D SCENE KNOWLEDGE
Chengbin Zeng, Huadong Ma, Beijing University of Posts and Telecommunications, P.R. China

10:15
TA.PG.16 MULTIMODAL LEARNING FOR MULTI-LABEL IMAGE CLASSIFICATION
Yanwei Pang, Zhao Ma, Tianjin University, P.R. China; Yuan Yuan, Chinese Academy of Sciences, P.R. China; Xuelong Li, Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences, P.R. China; Kongqiao Wang, Nokia Research Center, P.R. China

TP.L1 Tuesday, September 13, 14:20-17:35

Distributed Compression: Multimedia Applications (Special Session)
Room: Silver Hall
Co-Chairs: Samuel Cheng, University of Oklahoma, USA;
Vladimir Stankovic, University of Strathclyde, United Kingdom

14:20
TP.L1.1 DISTRIBUTED COMPRESSION: OVERVIEW OF CURRENT AND EMERGING MULTIMEDIA APPLICATIONS
Lina Stankovic, Vladimir Stankovic, University of Strathclyde, United Kingdom; Samuel Cheng, University of Oklahoma, USA

14:40
TP.L1.2 QUALITY-CONTROLLED VIEW INTERPOLATION FOR MULTIVIEW VIDEO
Mina Makar, Yao-Chung Lin, Ngai-Man Cheung, Derek Pang, Bernd Girod, Stanford University, USA

15:00
TP.L1.3 A COMPARISON OF THE ERROR RESILIENCY OF BIT-PLANE BASED AND SYMBOL BASED PIXEL-DOMAIN DISTRIBUTED VIDEO CODING
Hu Chen, Eckehard Steinbach, Munich University of Technology, Germany; Chang Wen Chen, State University of New York at Buffalo, USA

15:20
TP.L1.4 DISTRIBUTED CODING OF ENDOSCOPIC VIDEO
Nikos Deligiannis, Frederik Verbist, Vrije Universiteit Brussel – IBBT, Belgium; Joeri Barbarien, Vrije Universiteit Brussel, Belgium; Jürgen Slowack, Ghent University, Belgium; Rik Van de Walle, Ghent University - IBBT, Belgium; Peter Schelkens, Adrian Munteanu, Vrije Universiteit Brussel, Belgium;

16:15
TP.L1.5 WYNER-ZIV CODING FOR DEPTH MAPS IN MULTIVIEW VIDEO-PLUS-DEPTH
Giovanni Petrazzuoli, Marco Cagnazzo, Frederic Dufaux, Beatrice Pesquet-Popescu, Télécom ParisTech, France

16:35
TP.L1.6 DISTRIBUTED COMPRESSION OF ZEROTREES OF WAVELET COEFFICIENTS
Yige Wang, MERL, USA; Shantanu Rane, Mitsubishi Electric Research Laboratories, USA; Petros T Boufounos, MERL, USA; Anthony Vetro, Mitsubishi Electic Research Laboratories, USA

16:55
TP.L1.7 DISTRIBUTED SOURCE CODING FOR SECURING A HAND-BASED BIOMETRIC RECOGNITION SYSTEM
Mauricio Ramalho, Instituto de Telecomunicações, Portugal; Paulo Lobato Correia, Instituto Superior Tecnico, Portugal; Luis Ducla Soares, I.S.C.T.E. / I.T. - Lisbon, Portugal

17:15
TP.L1.8 DISTRIBUTED TRANSFORMS FOR EFFICIENT DATA GATHERING IN ARBITRARY NETWORKS
Javier Trufero, Sunil K. Narang, University of Southern California, USA; Antonio Ortega, USC, USA

TP.L2 Tuesday, September 13, 14:20-17:35

Image and Noise Models for Restoration (Lecture)
Room: 211/212
Chair: Javier Portilla, Consejo Superior de Investigaciones Científicas, Spain

14:20
TP.L2.1 RESOLUTION-INVARIANT SEPARABLE ARMA MODELING OF IMAGES
Aurélien Bourquard, Hagai Kirshner, Michael Unser, Ecole Polytechnique Federale de Lausanne, Switzerland

14:40
TP.L2.2 CONDY: ULTRA-FAST HIGH PERFORMANCE RESTORATION USING MULTI-FRAME L2-RELAXED-L0 SPARSITY AND CONSTRAINED DYNAMIC HEURISTICS
Javier Portilla, Elena Gil-Rodrigo, Consejo Superior de Investigaciones Científicas, Spain; David Miraut, Ricardo Suarez-Mesa, Universidad Rey Juan Carlos, Spain

15:00
TP.L2.3 SPARSITY-BASED IMAGE DEBLURRING WITH LOCALLY ADAPTIVE AND NONLOCALLY ROBUST REGULARIZATION
Xin Li, West Virginia University, USA; Weisheng Dong, Guangming Shi, Xidian University, P.R. China; Lei Zhang, The Hong Kong Polytechnic University, Hong Kong

15:20
TP.L2.4 PATCH SIMILARITY UNDER NON GAUSSIAN NOISE
Charles-Alban Deledalle, Institut Telecom, Telecom Paristech, CNRS LTCI, France; Florence Tupin, Télécom Paris, France; Loïc Denis, Centre de Recherche Astrophysique de Lyon, France

16:15
TP.L2.5 GENERALIZED SUBSPACE BASED HIGH DIMENSIONAL DENSITY ESTIMATION
Karthikeyan Shanmuga Vadivel, University of California Santa Barbara, USA; Mehmet Emre Sargin, Google Inc., USA; Swapna Joshi, Bangalore Manjunath, Scott Grafton, UCSB, USA

16:35
TP.L2.6 ISING FIELD PARAMETER ESTIMATION FROM INCOMPLETE AND NOISY DATA
Jean-François Giovannelli, IMS, UMR CNRS 52 18, Université Bordeaux 1, France

16:55
TP.L2.7 NOISE ESTIMATION USING STATISTICS OF NATURAL IMAGES
Guangtao Zhai, Xiaolin Wu, McMaster University, Canada

17:15
TP.L2.8 HAZY IMAGE MODELING USING COLOR ELLIPSOIDS
Kristofor Gibson, Truong Nguyen, University of California in San Diego, USA

TP.L3 Tuesday, September 13, 14:20-17:35

Motion Analysis and Object Tracking (Lecture)
Room: 214/216
Chair: Tamas Szirányi, Computer and Automation Research Institute of the Hungarian Academy of Sciences, Hungary

14:20
TP.L3.1 **A FAST OBJECT TRACKING APPROACH BASED ON SPARSE REPRESENTATION**
Zhenjun Han, Jianbin Jiao, Qixiang Ye, Graduate University of Chinese Academy of Sciences, P.R. China

14:40
TP.L3.2 **EFFICIENTLY SELECTING SPATIALLY DISTRIBUTED KEYPOINTS FOR VISUAL TRACKING**
Steffen Gauglitz, Luca Foschini, Matthew Turk, Tobias Hollerer, University of California, Santa Barbara, USA

15:00
TP.L3.3 **SIMULTANEOUS 3D OBJECT TRACKING AND CAMERA PARAMETER ESTIMATION BY BAYESIAN METHODS AND TRANSDIMENSIONAL MCMC SAMPLING**
Raúl Mohedano, Narciso García, Universidad Politécnica de Madrid, Spain

15:20
TP.L3.4 **MULTI-PERSON TRACKING BASED ON VERTICAL REFERENCE LINES AND DYNAMIC VISIBILITY ANALYSIS**
Xinghan Luo, Robby Tan, Remco C. Veltkamp, Utrecht University, The Netherlands

16:15
TP.L3.5 **LOCAL COMPLEXITY ADAPTABLE TRAJECTORY PARTITIONING VIA MINIMUM MESSAGE LENGTH**
Charles Twardy, Anthony Stefanidis, George Mason University, USA

16:35
TP.L3.6 **FAST TV-L1 OPTICAL FLOW FOR INTERACTIVITY**
Emmanuel d'Angelo, Johan Paratte, Gilles Puy, Pierre Vandergheynst, EPFL, Switzerland

16:55
TP.L3.7 **CO-OCCURRENCE FLOW FOR PEDESTRIAN DETECTION**
Atsuto Maki, Toshiba Research Europe, United Kingdom; Akihito Seki, Toshiba Corporation, Japan; Tomoki Watanabe, Toshiba Corporation, Japan; Roberto Cipolla, University of Cambridge, United Kingdom

17:15
TP.L3.8 **HIERARCHICAL FUSION OF DESCRIPTOR MATCHING AND L-K OPTICAL FLOW**
Haibo Wang, Chunhong Pan, Institute of Automation, Chinese Academy of Sciences, P.R. China; Franck Davoine, CNRS, P.R. China; ShaoGuo Liu, Institute of Automation, Chinese Academy of Sciences, P.R. China

TP.L4 Tuesday, September 13, 14:20-17:35

Sparse Image Recovery (Lecture)
Room: 213/215
Chair: Pier-Luigi Dragotti, Imperial College, United Kingdom

14:20
TP.L4.1 **INCREASING IMAGING RESOLUTION BY COVERING YOUR SENSOR**
Michael Schöberl, Jürgen Seiler, University of Erlangen-Nuremberg, Germany; Siegfried Foessel, Fraunhofer IIS, Germany; Andre Kaup, University of Erlangen-Nuremberg, Germany

14:40
TP.L4.2 **INVERSE PROBLEMS WITH POISSON NOISE: PRIMAL AND PRIMAL-DUAL SPLITTING**
Francois-Xavier Dupé, CEA, France; Jalal Fadili, GREYC CNRS UMR 6072, ensicaen, France; Jean-Luc Starck, CEA, France

15:00
TP.L4.3 **SPARSE IMAGE RESTORATION USING ITERATED LINEAR EXPANSION OF THRESHOLDS**
Hanjie Pan, The Chinese University of Hong Kong, Hong Kong; Thierry Blu, EPFL, Switzerland

15:20
TP.L4.4 **CUTSET SAMPLING AND RECONSTRUCTION OF IMAGES**
Ashish Farmer, Awlok Josan, Matthew Prelee, David Neuhoff, University Michigan, USA; Thrasyvoulos N. Pappas, Northwestern University, USA

16:15
TP.L4.5 **A GRAPH CUT METHOD FOR LINEAR INVERSE PROBLEMS**
Ahmet Tuysuzoglu, Ivana Stojanovic, David Castanon, William Karl, Boston University, USA

16:35
TP.L4.6 **CONVEX APPROACHES TO MODEL WAVELET SPARSITY PATTERNS**
Nikhil Rao, Rob Nowak, University of Wisconsin, Madison, USA; Stephen J Wright, University of Wisconsin, USA; Nick Geoffrey Kingsbury, University of Cambridge, United Kingdom

16:55
TP.L4.7 **WEIGHTED FIDELITY IN NON-UNIFORMLY QUANTIZED COMPRESSED SENSING**
Laurent Jacques, University of Louvain, Belgium; David Hammond, University of Oregon, USA; Jalal Fadili, GREYC CNRS UMR 6072, ensicaen, France

17:15
TP.L4.8 **REFRACTIVE INDEX ESTIMATION USING PHOTOMETRIC STEREO**
Gule Saman, Edwin Hancock, University of York, United Kingdom

TP.L5 Tuesday, September 13, 14:20-17:35

Image Forensics (Lecture)
Room: The Arc
Chair: Alex Kot, Nanyang Technological University, Singapore

14:20
TP.L5.1 **DETECTION OF NON-ALIGNED DOUBLE JPEG COMPRESSION WITH ESTIMATION OF PRIMARY COMPRESSION PARAMETERS**
Tiziano Bianchi, University of Firenze, Italy; Alessandro Piva, University of Florence, Italy

14:40
TP.L5.2 **IDENTIFYING COMPUTER GENERATED GRAPHICS VIA HISTOGRAM FEATURES**
Ruoyu Wu, Xiaolong Li, Bin Yang, Institute of Computer Science and Technology, Peking University, P.R. China

15:00
TP.L5.3 **EYE SPECULAR HIGHLIGHTS TELLTALES FOR DIGITAL FORENSICS: A MACHINE LEARNING APPROACH**
Priscila Saboia, Tiago Carvalho, University of Campinas (Unicamp), Brazil; Anderson Rocha, State University of Campinas, Brazil

15:20
TP.L5.4 **AN APPLICATION OF SPARSE CODE SHRINKAGE TO IMAGE STEGANALYSIS BASED ON SUPERVISED LEARNING**
Michiharu Niimi, Hideki Noda, Kyushu Institute of Technology, Japan

16:15
TP.L5.5 **MODELING THE EXIF-IMAGE CORRELATION FOR IMAGE MANIPULATION DETECTION**
Jiayuan Fan, Alex Kot, Hong Cao, Nanyang Technological University, Singapore; Farook Sattar, University of Victoria, Canada

16:35
TP.L5.6 **COUNTERING JPEG ANTI-FORENSICS**
Giuseppe Valenzise, Vitaliano Nobile, Marco Tagliasacchi, Stefano Tubaro, Politecnico di Milano, Italy

16:55
TP.L5.7 **EXPLORING COMPRESSION EFFECTS FOR IMPROVED SOURCE CAMERA IDENTIFICATION USING STRONGLY COMPRESSED VIDEO**
Wei-Hong Chuang, Hui Su, M Wu, University of Maryland, USA

17:15
TP.L5.8 **PASSIVE SPREAD-SPECTRUM STEGANALYSIS**
Ming Li, Michel Kulhandjian, Dimitris A. Pados, Stella N. Batalama, State University of New York at Buffalo, USA; Michael Medley, Air Force Research Laboratory, USA

TP.L6 Tuesday, September 13, 14:20-17:15

3D Image Generation and Analysis (Lecture)
Room: Hall 300
Chair: Thrasyvoulos N. Pappas, Northwestern University, USA

14:20
TP.L6.1 **2D TO 3D CONVERSION OF SPORTS CONTENT USING PANORAMAS**
Lars Schnyder, Oliver Wang, Aljoscha Smolic, Disney Research Zurich, Switzerland

14:40
TP.L6.3 **HOLE FILLING WITH RANDOM WALKS USING OCCLUSION CONSTRAINTS IN VIEW SYNTHESIS**
Sunghwan Choi, Bumsub Ham, Kwang Hoon Sohn, Yonsei University, Korea

15:00
TP.L6.4 **A TRIANGULAR-WARPING BASED VIEW SYNTHESIS SCHEME WITH ENHANCED ARTIFACT REDUCTION FOR FTV**
Chao-Hsuan Li, National Chiao Tung University, Taiwan; Hsueh-Ming Hang, NCTU, Taiwan

15:20
TP.L6.5 **SUPER-RESOLUTION PLANE SWEEPING FOR FREE-VIEWPOINT IMAGE SYNTHESIS**
Keita Takahashi, The University of Tokyo, Japan; Masato Ishii, NEC Corporation, Japan; Takeshi Naemura, Tokyo University, Japan

16:15
TP.L6.6 **DEPTH MAP RECONSTRUCTION USING COLOR-BASED REGION MERGING**
Camilo Dorea, Ricardo de Queiroz, University of Brasil, Brazil

16:35
TP.L6.7 **RECOVERING DEPTH FROM A SINGLE IMAGE USING SPECTRAL ENERGY OF THE DEFOCUSED STEP EDGE GRADIENT**
Cheng-Wei Chen, National Taiwan University, Taiwan; Yung-Yaw Chen, National Taiwan University, Taiwan

16:55
TP.L6.8 **3D SURFACE REGISTRATION USING Z-SIFT**
Lulu He, Northwestern University, USA; Sen Wang, Eastman Kodak Company, USA; Thrasyvoulos N. Pappas, Northwestern University, USA

TP.L7 Tuesday, September 13, 14:20-17:35

Lossless and Predictive Coding (Lecture)
Room: 311/312
Chair: David Taubman, University of New South Wales, Australia

14:20
TP.L7.1 **L_2 RESTORATION OF L_∞-DECODED IMAGES WITH CONTEXT MODELING**
Jiantao Zhou, Xiaolin Wu, McMaster University, Canada

14:40
TP.L7.2 **IMAGE SIMILARITY USING THE NORMALIZED COMPRESSION DISTANCE BASED ON FINITE CONTEXT MODELS**
Armando J Pinho, Paulo Ferreira, University of Aveiro, Portugal

15:00
TP.L7.3 **ON LOSSLESS IMAGE COMPRESSION USING THE BURROWS-WHEELER TRANSFORM**
Donald Adjeroh, West Virginia University, USA; Kalyan Bhupathiraju, West Virginia University, USA

15:20
TP.L7.4 **LOSSLESS VIDEO CODING USING GRID-GRADIENT CLASSIFICATION**
Ashwani Sharma, Indian Institute of Technology - Delhi, India; Anil Tiwari, Indian Institute of Technology Rajasthan, India

16:15
TP.L7.5 **EXPLOITATION OF CONTEXT CLASSIFICATION FOR PARALLEL PIXEL CODING IN JPEG-LS**
Simeon Wahl, Haitham Tantawy, Zhe Wang, Philipp Werner, Sven Simon, University of Stuttgart, Germany

16:35
TP.L7.6 **IMPROVED H.264/AVC LOSSLESS INTRA COMPRESSION USING MULTIPLE PARTITION PREDICTION FOR 4X4 INTRA BLOCK**
Sang Heon Lee, Jewoong Ryu, Nam-Ik Cho, Seoul National University, Korea

16:55
TP.L7.7 **IMPROVED LOSSLESS CODING ALGORITHM IN H.264/AVC BASED ON HIERARCHICAL INTRA PREDICTION**
Li-Li Wang, Wan-Chi Siu, The Hong Kong Polytechnic University, Hong Kong

17:15
TP.L7.8 **ADAPTIVE LEAST SQUARES PREDICTION FOR STEREO IMAGE CODING**
Luís Lucas, Polytechnic Institute of Leiria, Portugal; Nuno Rodrigues, IPL/Institute of Telecommunications, Portugal; Eduardo Silva, UFRJ, Brazil; Sérgio M. M. Faria, Institute of Telecommunications, Portugal

TP.L8 Tuesday, September 13, 14:20-17:35

Ultrasound and Microscopic Imaging (Lecture)
Room: 314/316
Chair: Jan P.H. Cornelis, Vrije Universiteit Brussel, Belgium

14:20
TP.L8.1 **ELASTOGRAPHIC IMAGE RECONSTRUCTION: A STOCHASTIC STATE SPACE APPROACH**
Jun Wang, Zhejiang University, P.R. China

14:40
TP.L8.2 **REDUCING THE TRAINING SET USING SEMI-SUPERVISED SELF-TRAINING ALGORITHM FOR SEGMENTING THE LEFT VENTRICLE IN ULTRASOUND IMAGES**
Jacinto C. Nascimento, Instituto de Sistemas e Robotica, Portugal; Gustavo Carneiro, Instituto de Sistemas e Robótica (ISR), Portugal

15:00
TP.L8.3 **ENHANCED CLASSIFICATION OF FOCAL HEPATIC LESIONS IN ULTRASOUND IMAGES USING NOVEL TEXTURE FEATURES**
Sihyoung Lee, In A Jo, Korea Advanced Institute of Science and Technology, Korea; Kyung Won Kim, Seoul National University Hospital, Korea; Jae Young Lee, Seoul National University Hospital, Korea; Yong Man Ro, KAIST, Korea

15:20
TP.L8.4 **REALISTIC LOG-COMPRESSED LAW FOR ULTRASOUND IMAGE RECOVERY**
Gonzalo Vegas Sánchez-Ferrero, Diego Martin-Martinez, Pablo Casaseca-de-la-Higuera, Lucilio Cordero-Grande, Santiago Aja Fernández, Marcos Martín Fernandez, Cesar Palencia, University of Valladolid, Spain

16:15
TP.L8.5 **COMPACT ROTATION INVARIANT IMAGE DESCRIPTORS BY SPECTRAL TRIMMING**
Maxime Taquet, Belgium, Belgium; Laurent Jacques, University of Louvain, Belgium; Benoit Macq, UCL, Belgium; Sylvain Jaume, Massachusetts Institute of Technology, USA

16:35
TP.L8.6 **MODELING OF PSF FOR REFRACTIVE INDEX VARIATION IN FLUORESCENCE MICROSCOPY**
Sameer Hiware, Indian Institute of Technology Bombay, India; Pradyot Porwal, Indian Institute of Management Bangalore, India; Rajbabu Velmurugan, IIT Bombay, India; Subhasis Chaudhuri, Indian Institute of Technology, Bombay, India

16:55
TP.L8.7 **IMAGE FILTERING USING ANISOTROPIC STRUCTURE TENSOR FOR CELL MEMBRANE ENHANCEMENT IN 3D MICROSCOPY**
Sorin Pop, Institut Pasteur, France; Alexandre Dufour, Institut Pasteur, France; Jean-Christophe Olivo-Marin, Institut Pasteur, France

17:15
TP.L8.8 **ALL-IDB: THE ACUTE LYMPHOBLASTIC LEUKEMIA IMAGE DATABASE FOR IMAGE PROCESSING**
Ruggero Donida Labati, Università degli Studi di Milano, Italy; Vincenzo Piuri, University of Milan, Italy; Fabio Scotti, Universita' degli Studi di Milano, Italy

TP.L9 Tuesday, September 13, 14:20-17:35

Object and Human Detection (Lecture)
Room: 313/315
Co-Chairs: Ton Kalker, Hewlett-Packard, USA

14:20
TP.L9.1 DETECTING HUMANS UNDER OCCLUSION USING VARIATIONAL MEAN FIELD METHOD
Thanh Duc Nguyen, Philip Ogunbona, Wanqing Li, University of Wollongong, Australia

14:40
TP.L9.2 LOCAL BINARY PATTERN FEATURES FOR PEDESTRIAN DETECTION AT NIGHT/DARK ENVIRONMENT
Yunyun Cao, Security & Safety Systems Development Office, Japan; Sugiri Pranata, Panasonic Singapore Laboratories Pte Ltd, Singapore; Hirofumi Nishimura, Tokyo R&D Center, Panasonic Corporation, Japan

15:00
TP.L9.3 EFFECTIVE DISCRETIZATION OF GABOR FEATURES FOR REAL-TIME FACE DETECTION
Feijun Jiang, Bertram Shi, Hong Kong University of Science and Technology, Hong Kong; Mika Fischer, Hazim Ekenel, Karlsruhe Institute of Technology (KIT), Germany

15:20
TP.L9.4 ROBUST CROWD COUNTING USING DETECTION FLOW
Junliang Xing, Haizhou Ai, Liwei Liu, Tsinghua University, P.R. China; Shihong Lao, OMRON Corporation, Japan

16:15
TP.L9.5 DIRECTION-BASED STOCHASTIC MATCHING FOR PEDESTRIAN RECOGNITION IN NON- OVERLAPPING CAMERAS
Xiaotang Chen, Institute of Automation, Chinese Academy of Science, P.R. China; Kaiqi Huang, Chinese Academy of Sciences, P.R. China; Tieniu Tan, NLPR, P.R. China

16:35
TP.L9.8 ROBUST SHAPE-FROM-IMAGE-FOCUS BY 3-D MULTIVARIATE STATISTICAL ANALYSES
Mathieu Fernandes, Ecole des Mines de Saint-Etienne, France; Yann Gavet, Ecole des Mines de Saint-Etienne, France; Jean-Charles Pinoli, Ecole Nationale Supérieure des Mines, France

TP.PA Tuesday, September 13, 14:20-17:35

Image & Video Representations and Applications (Poster)
Room: Grand Hall 2
Chair: Sei-ichiro Kamata, Waseda university, Japan

14:20
TP.PA.1 ROBUST VIEW TRANSFORMATION MODEL FOR GAIT RECOGNITION
Shuai Zheng, Junge Zhang, Institute of Automation, Chinese Academy of Sciences, P.R. China; Kaiqi Huang, Chinese Academy of Sciences, P.R. China; Ran He, Institute of Antomation, Chines Academy of Sciences, P.R. China; Tieniu Tan, NLPR, P.R. China

14:20
TP.PA.2 INCREMENTAL ORTHOGONAL PROJECTIVE NON-NEGATIVE MATRIX FACTORIZATION AND ITS APPLICATIONS
Dong Wang, Huchuan LU, Dalian University of Technology, P.R. China

14:20
TP.PA.3 ERROR CONCEALMENT VIA 3-MODE TENSOR APPROXIMATION
Dzung Nguyen, Minh Dao, Trac D. Tran, Johns Hopkins University, USA

14:20
TP.PA.4 RELATIVE DEPTH FROM MONOCULAR OPTICAL FLOW
Enric Meinhardt-Llopis, Fundació Barcelona Media, Spain; Olivier D'Hondt, Barcelona Media, Spain; Gabriele Facciolo, Universitat Pompeu Fabra, Spain; Vicent Caselles, Universitat Pompeu Fabra, Spain

14:20
TP.PA.5 VECTOR FIELD ANALYSIS FOR MOTION PATTERN IDENTIFICATION IN VIDEO
Nandita Nayak, Ahmed T Kamal, Amit Roy-Chowdhury, University of California, Riverside, USA

14:20
TP.PA.6 VIDEO RESOLUTION ENHANCEMENT BY USING COMPLEX WAVELET TRANSFORM
Hasan Demirel, Eastern Mediterranean University, Turkey; Gholamreza Anbarjafari, Cyprus International University, Turkey; Cagri Ozcinar, University of Surrey, United Kingdom; Sara Izadpanahi, Eastern Mediterranean University, Turkey

14:20
TP.PA.7 SPACE-TIME TEMPLATE MATCHING FOR HUMAN ACTION DETECTION USING VOLUME-BASED GENERALIZED HOUGH TRANSFORM
YungChi Lo, Po-Yen Lee, National Taiwan Ocean University, Taiwan; Shyi-Chyi Cheng, National Taiwan Ocean University, Taiwan

14:20
TP.PA.8 AN IMPROVED DEPTH MAP ESTIMATION FOR CODING AND VIEW SYNTHESIS
Qiuwen Zhang, Shanghai University, P.R. China

14:20
TP.PA.9 MULTI-SCALE 3D REPRESENTATION VIA VOLUMETRIC QUASI-RANDOM SCALE SPACE
Akshaya Mishra, University of Waterloo, Canada; Alexander Wong, University of Waterloo, Canada; Paul Fieguth, University of Waterloo, Canada; David Clausi, University of Waterloo, Canada

(Continued on next page.)

(Continued from previous page)

14:20
TP.PA.10 **MOTION RE-ESTIMATION FOR H.264/AVC VIDEO DOWNSCALING TRANSCODING USING EPZS ALGORITHM**
Chia-Tien Lin, Yinyi Lin, National Central University, Taiwan, Taiwan

14:20
TP.PA.11 **GENERALIZED SELECTIVE DATA PRUNING FOR VIDEO SEQUENCE**
Yuichi Tanaka, Madoka Hasegawa, Utsunomiya University, Japan; Shigeo Kato, Utsunomiya University, Japan

14:20
TP.PA.12 **HYPERCOMPLEX POLAR FOURIER ANALYSIS FOR COLOR IMAGE**
Zhuo Yang, Sei-ichiro Kamata, Waseda university, Japan

14:20
TP.PA.13 **ANALYSIS OF SOLDER PASTE SCOOPING WITH HIERARCHICAL POINT PROCESSES**
Csaba Benedek, MTA SZTAKI, Hungary

14:20
TP.PA.14 **IMAGE SEGMENTATION WITH HIERARCHICAL TOPIC ASSIGNMENT**
Hao Feng, Beijing University of Aeronautics and Astronautics, P.R. China; Zhiguo Jiang, Image Processing Center, Beijing University of Aeronautics and Astronautics, P.R. China

14:20
TP.PA.15 **COLOR CORRECTION VIA ROBUST REFERENCE SELECTION AND RECOVERY USING A LOW-RANK MATRIX MODEL**
Dong Li, The Hong Kong Polytechnic University, Hong Kong; Xudong Xie, Tsinghua University, P.R. China; Kenneth Lam, Hong Kong Polytechnic University, Hong Kong

TP.PB Tuesday, September 13, 14:20-17:35

Biomedical Image Registration and Segmentation (Poster)
Room: Grand Hall 2
Chair: Peter Faltin, RWTH Aachen University, Germany

14:20
TP.PB.1 **WEIGHTING FUNCTION IN RANDOM WALK BASED LEFT VENTRICLE SEGMENTATION**
Sarada Prasad Dakua, Indian Institute of Technology Guwahati, India

14:20
TP.PB.2 **BRAIN STRUCTURE SEGMENTATION FROM DIFFUSION TENSOR IMAGING**
Meng Lu, Northeastern University, P.R. China

14:20
TP.PB.3 **TOPOLOGICAL VASCULAR TREE SEGMENTATION FOR RETINAL IMAGES USING SHORTEST PATH CONNECTION**
Li Chen, YaoYong Ju, Sheng Ding, XiaoMing Liu, Wuhan University of Science and Technology, P.R. China

14:20
TP.PB.4 **2D-GE IMAGE SEGMENTATION BASED ON LEVEL-SETS**
Eleftheria Mylona, Michalis Savelonas, Dimitris Maroulis, University of Athens, Greece; Michalis Aivaliotis, Institute of Molecular Biology, Greece

14:20
TP.PB.5 **MULTIRESOLUTION LOCALIZATION AND SEGMENTATION OF THE OPTICAL DISC IN FUNDUS IMAGES USING INPAINTED BACKGROUND AND VESSEL INFORMATION**
Andrea Giachetti, University of Verona, Italy; Khai Chin, University of Dundee, United Kingdom; Trucco Manuel, Affiliation, United Kingdom; Caroline Cobb, NHS Ninewells Hospital, Dundee, United Kingdom; Peter Wilson, NHS Ninewells Hospital, Dundee, United Kingdom

14:20
TP.PB.6 **EFFICIENT MULTI-OBJECT SEGMENTATION OF 3D MEDICAL IMAGES USING CLUSTERING AND GRAPH CUTS**
Razmig Kéchichian, INSA-Lyon, France; Sébastien Valette, CNRS UMR520, France; Michel Desvignes, GRENOBLE-INP, France; Remy Prost, CREATIS,; UMR CNRS 5220; Inserm U630;INSA lyon, France

14:20
TP.PB.7 **CELLSNAKE: A NEW ACTIVE CONTOUR TECHNIQUE FOR CELL/FIBRE SEGMENTATION**
Kangyu Pan, Trinity College Dublin, Ireland; Anil Kokaram, Trinity College Dublin, Ireland; Kerry Gilmore, Michael Higgins, Robert Kapsa, Gordon Wallace, University of Wollongong, Australia;

14:20
TP.PB.8 **VARIATIONAL APPROACH FOR SEGMENTATION OF LUNG NODULES**
Amal Farag, University of Louisville, USA

14:20
TP.PB.9 **A NOVEL PROBABILISTIC SIMULTANEOUS SEGMENTATION AND REGISTRATION USING LEVEL SET**
Melih Aslan, CVIP Lab, Eslam Mostafa, University of Louisville, USA; Hossam Abdelmunim, Faculty of Engineering, Ain Shams University, Egypt; Ahmed Shalaby, Aly Farag, University of Louisville, USA; Ben Arnold, Image Analysis, Inc., USA;

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14:20
TP.PB.10 EFFICIENT CELL SEGMENTATION AND TRACKING OF DEVELOPING PLANT MERISTEM
Katya Mkrtchyan, University of California, Riverside, USA; Damanpreet Singh, UCI, USA; Min Liu, UCR, USA; Venugopala Reddy, UCR, USA; Amit Roy-Chowdhury, University of California, Riverside, USA; Gopi M., University of California, Irvine, USA

14:20
TP.PB.11 RETINAL IMAGE REGISTRATION USING BIFURCATION STRUCTURES
Li Chen, Yang Xiang, YaoJie Chen, Zhang Xiaolong, Wuhan University of Science and Technology, P.R. China

14:20
TP.PB.12 LUNG TUMOR DELINEATION IN PET-CT IMAGES USING A DOWNHILL REGION GROWING AND A GAUSSIAN MIXTURE MODEL
Cherry Ballangan, Xiuying Wang, Michael Fulham, University of Sydney, Australia; Stefan Eberl, Royal Prince Alfred Hospital, Australia; Dagan Feng, The University of Sydney, Australia

14:20
TP.PB.13 TEMPORAL REGISTRATION OF PARTIAL DATA USING PARTICLE FILTERING
Guy Nir, University of British Columbia, Canada; Allen Tannenbaum, Georgia Institute of Technology, USA

14:20
TP.PB.14 MARKOV-GIBBS MODEL BASED REGISTRATION OF CT LUNG IMAGES USING SUBSAMPLING FOR THE FOLLOW-UP ASSESSMENT OF PLEURAL THICKENINGS
Peter Faltin, Kraisorn Chaisaowong, RWTH Aachen University, Germany; Thomas Kraus, University Hospital Aachen, Germany; Til Aach, RWTH Aachen University, Germany

14:20
TP.PB.15 ULTRASOUND-BASED SURGICAL NAVIGATION FOR PERCUTANEOUS RENAL INTERVENTION: IN VIVO MEASUREMENTS AND IN VITRO ASSESSMENT
Zhicheng Li, Jia Gu, Shenzhen Institutes of Advanced Technology, Chinese Academy of Science, P.R. China; Jacob Chakareski, EPFL, Switzerland; Lei Wang, Chinese Academy of Sciences, P.R. China

14:20
TP.PB.16 LEARNING SHAPE STATISTICS FOR HIERARCHICAL 3D MEDICAL IMAGE SEGMENTATION
Wuxia Zhang, Yuan Yuan, Chinese Academy of Sciences, P.R. China; Xuelong Li, Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences, P.R. China; Pingkun Yan, Chinese Academy of Sciences, P.R. China

TP.PC Tuesday, September 13, 14:20-17:35

Image/Video Coding, Streaming and Recovery (Poster)
Room: Grand Hall 2
Chair: John Apostolopoulos, Hewlett-Packard Labs, USA

14:20
TP.PC.1 HTTP-BASED SCALABLE VIDEO STREAMING OVER MOBILE NETWORKS
Ktawut Tappayuthpijarn, Nomor Research, Germany; Thomas Stockhammer, Nomor Research GmbH, Germany; Eckehard Steinbach, Munich University of Technology, Germany

14:20
TP.PC.2 JOINT SOURCE-CHANNEL CODING OPTIMIZATION WITH PACKET LOSS RESILIENCE FOR VIDEO TRANSMISSION
Ching-Hui Chen, Wei-Ho Chung, Yu-Chiang Frank Wang, Academia Sinica, Taiwan

14:20
TP.PC.3 JOINT SPACE-TIME-VIEW ERROR CONCEALMENT ALGORITHMS FOR 3D MULTI-VIEW VIDEO
Walid El Shafai, E-JUST University, Egypt; Branislav Hrušovský, Technical University of Košice, Slovakia; Mostafa El-Khamy, Egypt-Japan University of Science and Technology, Egypt; Mohamed El-Sharkawy, Purdue School of Engineering and Technology, USA

14:20
TP.PC.4 EXPANDING WINDOW RANDOM LINEAR CODES FOR DATA PARTITIONED H.264 VIDEO TRANSMISSION OVER DVB-H NETWORK
Sajid Nazir, Vladimir Stankovic, University of Strathclyde, United Kingdom; Dejan Vukobratović, University of Novi Sad, Serbia

14:20
TP.PC.5 TEMPORAL ADAPTATION STRATEGIES FOR SPATIO-TEMPORAL IMAGE ALIGNMENT IN INTER-SEQUENCE ERROR CONCEALMENT OF DIGITAL TV
Tobias Tröger, Andre Kaup, University of Erlangen-Nuremberg, Germany

14:20
TP.PC.6 AN IMPROVED ERROR CONCEALMENT BY DIMINISHING THE EDGE DISCONTINUITY
Jun-Horng Chen, Oriental Institute of Technology, Taiwan

14:20
TP.PC.7 HIGH-FREQUENCY ERROR RECOVERY IN JPEG XR CODED IMAGES
Cristian Perra, University of Cagliari, Italy

14:20
TP.PC.8 JOINT SOURCE-CHANNEL DECODING OF MOTION-INFORMATION USING MAXIMUM-A-POSTERIORI
Ângelo Arrifano, University of Beira Interior, Portugal; Marc Antonini, I3S-CNRS-University of Nice Sophia Antipolis, France; Manuela Pereira, University of Beira Interior, Portugal; Mario M. Freire, University of Beira Interior, Portugal

14:20
TP.PC.9 NEW TCP VIDEO STREAMING PROXY DESIGN FOR LAST-HOP WIRELESS NETWORKS
Wei Pu, State University of New York at Buffalo, USA; Zixuan Zou, Huawei Technologies Co. LTD, P.R. China; Chang Wen Chen, State University of New York at Buffalo, USA

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14:20
TP.PC.10 **PIXEL DOMAIN REFERENCELESS VISUAL DEGRADATION DETECTION AND ERROR CONCEALMENT FOR MOBILE VIDEO**
Luc Trudeau, École de Technologie Supérieure, Université du Québec, Canada; Stephane Coulombe, Ecole de technologie supérieure, Canada; Steven Pigeon, Ecole de technologie supérieure, Canada

14:20
TP.PC.11 **CONTRIBUTION-BASED PEER SELECTION FOR PACKET PROTECTION FOR P2P VIDEO STREAMING OVER MESH-BASED NETWORKS**
Chi-Wen Lo, Chia-Wen Lin, Yung-Chang Chen, National Tsing Hua University, Taiwan; Yu Jen-Yu, Industrial Technology Research Institute, Taiwan

14:20
TP.PC.12 **CHANNEL PROTECTION FOR H.264 COMPRESSION IN TRANSPORTATION VIDEO SURVEILLANCE APPLICATIONS**
Eren Soyak, Sotirios A. Tsaftaris, Aggelos K. Katsaggelos, Northwestern University, USA

14:20
TP.PC.13 **SCALABLE VIDEO STREAMING OVER OPENFLOW NETWORKS: AN OPTIMIZATION FRAMEWORK FOR QOS ROUTING**
Hilmi Enes Egilmez, Burak Gorkemli, A. Murat Tekalp, Koc University, Turkey; Seyhan Civanlar, Argela Technologies, Turkey

14:20
TP.PC.14 **ERROR RECOVERY OF IMAGE-BASED DEPTH MAPS USING BÉZIER CURVE FITTING**
Sylvain Marcelino, Universidade de Tras-os-Montes e Alto Douro / Instituto de Telecomunicacoes Leiria, Portugal; Pedro A. Amado Assuncao, Polytechnic Institute of Leiria / Instituto de Telecomunicacoes, Portugal; Sérgio M. M. Faria, Institute of Telecommunications, Portugal; Salviano Soares, Universidade de Trás-os-Montes e Alto Douro, Portugal

14:20
TP.PC.15 **ADAPTIVE POLICIES FOR REAL-TIME VIDEO TRANSMISSION: A MARKOV DECISION PROCESS FRAMEWORK**
Chao Chen, Robert Heath, Alan C Bovik, Gustavo de Veciana, The University of Texas at Austin, USA

14:20
TP.PC.16 **ADAPTIVE FRAME AND QP SELECTION FOR TEMPORALLY SUPER-RESOLVED FULL-EXPOSURE-TIME VIDEO**
MIhoko Shimano, University of Tokyo, Japan; Gene Cheung, Imari Sato, National Institute of Informatics, Japan

TP.PD Tuesday, September 13, 14:20-17:35

Computational and Magnetic Resonance Imaging (Poster)
Room: Grand Hall 2
Chair: Jean-Philippe Thiran, École Polytechnique Fédérale de Lausanne, Switzerland

14:20
TP.PD.1 **AN EXPLORATION FRAMEWORK FOR SEGMENTATION PARAMETER SPACES**
Sarra Ben Fredj, Creatis, France; Tristan Glatard, University of Lyon ; CREATIS-LRMN, France; Christopher Casta, CREATIS, France; Patrick Clarysse, CREATIS-LRMN, CNRS UMR 5220, INSERM U630, France

14:20
TP.PD.2 **PARALLEL QUADRATIC PROGRAMMING FOR IMAGE PROCESSING**
Matthew Brand, MERL, USA; Donghui Chen, Tufts University, USA

14:20
TP.PD.3 **LOW VISUAL DIFFERENCE VIRTUAL HIGH DYNAMIC RANGE IMAGE SYNTHESIZER FROM A SINGLE LEGACY IMAGE**
Tsun-Hsien Wang, Ching-Te Chiu, National Tsing Hua University, Taiwan

14:20
TP.PD.4 **TOWARDS A DIFFUSION IMAGE PROCESSING VALIDATION AND ACCURACY PREDICTION FRAMEWORK**
Francesca Pizzorni Ferrarese, University of Verona, Italy; Alessandro Daducci, Meritxell Bach Cuadra, Alia Lemkaddem, Cristina Granziera, Jean-Philippe Thiran, École Polytechnique Fédérale de Lausanne, Switzerland; Gloria Menegaz, University of Verona, Italy;

14:20
TP.PD.5 **A NEW SIMILARITY MEASURE FOR MULTI-MODAL IMAGE REGISTRATION**
Mark Pickering, UNSW@adfa, Australia

14:20
TP.PD.6 **SEGMENTED RAPID MAGNETIC RESONANCE IMAGING USING STRUCTURED SPARSE REPRESENTATIONS**
Vimal Singh, Dan Wang, Ahmed Tewfik, University of Texas, Austin, USA

14:20
TP.PD.7 **EXTENDED KALMAN FILTERING FOR MR-THERMOMETRY GUIDED HIGH INTENSITY FOCUSED ULTRASOUND USING THE BIO HEAT TRANSFER EQUATION**
Sébastien Roujol, France; Baudouin Denis de Senneville, Silke Hey, University of Bordeaux 2, France; Chrit Moonen, University of Bordeaux, France; Mario Ries, Laboratory for Molecular and Functional Imaging, France

14:20
TP.PD.8 **A NEW 3D AUTOMATIC SEGMENTATION FRAMEWORK FOR ACCURATE EXTRACTION OF PROSTATE FROM DIFFUSION IMAGING (DW-MRI)**
Ahmad Firjani, University of Louisville, USA; Fahmi Khalifa, Bioimaging Laboratory, USA; Ahmed Elnakib, Bioimaging Lab, USA; Georgy Gimel'farb, University of Auckland, USA; Mohamed Abo El-Ghar, Univer sity of Mansoura, Egypt; Adel S Elmaghraby, University of Louisville, USA; Ayman Sabry El-Baz, University of Louisville, USA

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14:20
TP.PD.9 **A NEW FRAMEWORK FOR AUTOMATED SEGMENTATION OF LEFT VENTRICLE WALL FROM CONTRAST ENHANCED CARDIAC MAGNETIC RESONANCE IMAGES**
Ahmed Elnakib, Bioimaging Lab, USA; Garth Beache, Diagnostic Radiology Department, USA; Georgy Gimel'farb, University of Auckland, USA; Ayman Sabry El-Baz, University of Louisville, USA

14:20
TP.PD.10 **DYNAMIC COMPRESSIVE MAGNETIC RESONANCE IMAGING USING A GAUSSIAN SCALE MIXTURES MODEL**
Yookyung Kim, University of Arizona, USA; Mariappan Nadar, Siemens Corporation, Corporate Research, USA; Ali Bilgin, ECE Dept, The University of Arizona, USA

14:20
TP.PD.11 **ORTHONORMAL EXPANSION l_1-MINIMIZATION FOR COMPRESSED SENSING IN MRI**
Jun Deng, Zai Yang, Nanyang Technological University, Singapore; Cishen Zhang, Swinburne University of Technology, Australia; Lu Wenmiao, Nanyang Technological University, Singapore

TP.PE Tuesday, September 13, 14:20-17:35

Tracking and Motion Detection (Poster)
Room: Grand Hall 2
Chair: Andreas Krutz, Technische Universität Berlin, Germany

14:20
TP.PE.1 **HUMAN POSE TRACKING IN LOW DIMENSIONAL SPACE ENHANCED BY LIMB CORRECTION**
Alexandros Moutzouris, Jesus Martinez-del-Rincon, Michal Lewandowski, Jean-Christophe Nebel, Dimitrios Makris, Kingston University, United Kingdom

14:20
TP.PE.2 **HUMAN TRACKING BY STRUCTURED BODY PARTS**
Yingkun Xu, Chinese Academy of Sciences, P.R. China; Lei Qin, Shuqiang Jiang, Institute of Computing Technology, Chinese Academy of Sciences, Beijing, P.R. China; Qingming Huang, Graduate School of Chinese Academy of Sciences, P.R. China

14:20
TP.PE.3 **REAL-TIME MOVING OBJECT SEGMENTATION AND TRACKING FOR H.264/AVC SURVEILLANCE VIDEOS**
Pei Dong, Yong Xia, University of Sydney, Australia; Zhuo Li, Beijing University of Technology, P.R. China; Dagan Feng, The University of Sydney, Australia

14:20
TP.PE.4 **TRACKING PEDESTRIANS USING SMOOTHED COLOUR HISTOGRAMS IN AN INTERACTING MULTIPLE MODEL FRAMEWORK**
Zhengqiang Jiang, Du Huynh, The University of Western Australia, Australia; Bill Moran, University of Melbourne, Australia; Subhash Challa, The University of Melbourne, Australia

14:20
TP.PE.5 **CONTOUR TRACKING VIA ON-LINE DISCRIMINATIVE APPEARANCE MODELING BASED LEVEL SETS**
Xin Sun, Hongxun Yao, Shengping Zhang, Harbin Institute of Technology, P.R. China

14:20
TP.PE.6 **LIP CONTOUR TRACKING USING MULTIPLE DYNAMIC MODELS ON A MANIFOLD**
Jacinto C. Nascimento, Instituto de Sistemas e Robotica, Portugal; Jorge Silva, Duke University, USA

14:20
TP.PE.7 **PFT: A PROTOCOL FOR EVALUATING VIDEO TRACKERS**
Tahir Nawaz, Andrea Cavallaro, Queen Mary, University of London, United Kingdom

14:20
TP.PE.8 **REAL-TIME HUMAN TRACKING BASED ON SWTCHING LINEAR DYNAMIC SYSTEM COMBINED WITH ADAPTIVE MEANSHIFT TRACKER**
Zheyuan Li, Hong Liu, Chao Xu, Peking University, P.R. China

14:20
TP.PE.9 **A STRUCTURED LEARNING-BASED GRAPH MATCHING FOR DYNAMIC MULTIPLE OBJECT TRACKING**
Dayu Zheng, Hongkai Xiong, Shanghai Jiao Tong University, P.R. China; Yuan F. Zheng, Ohio State University, USA

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14:20
TP.PE.10 MOTION DETECTION IN OLD FILM SEQUENCES USING ADAPTIVE GAUSSIAN MIXTURE MODEL
Xiaoyong Zhang, Masahide Abe, Masayuki Kawamata, Tohoku University, Japan

14:20
TP.PE.11 GRADIENT SPARSITY FOR PIECEWISE CONTINUOUS OPTICAL FLOW ESTIMATION
Junyu Han, Fei Qi, Guangming Shi, Xidian University, P.R. China;

14:20
TP.PE.12 EFFICIENT REAL-TIME LOCAL OPTICAL FLOW ESTIMATION BY MEANS OF INTEGRAL PROJECTIONS
Tobias Senst, Volker Eiselein, Michael Pätzold, Thomas Sikora, Technische Universität Berlin, Germany

14:20
TP.PE.13 VIDEO MOTION DETECTION ALGORITHM USING PROBABILISTIC TIME INTEGRATED RANSAC
Tal Nir, Rafael, Israel; Orit Eden, Rafael, Israel

14:20
TP.PE.14 IDENTIFYING SALIENT POSES IN LECTURE VIDEOS
John R Zhang, Columbia University, USA; John R. Kender, Columbia University, USA

14:20
TP.PE.15 FEATURE SELECTION WITH GEOMETRIC CONSTRAINTS FOR VISION-BASED UNMANNED AERIAL VEHICLE NAVIGATION
Maria E. Angelopoulou, Christos-Savvas Bouganis, Imperial College London, United Kingdom

TP.PF Tuesday, September 13, 14:20-17:35

Scene Analysis (Poster)
Room: Grand Hall 2
Chair: Nam-Ik Cho, Seoul National University, Korea

14:20
TP.PF.1 TWO-PHASE APPROACH FOR MULTI-VIEW OBJECT EXTRACTION
Sungheum Kim, Yu-wing Tai, Yunsu Bok, Hyoungwoo Kim, In So Kweon, Korea Advanced Institute of Science and Technology (KAIST), Korea

14:20
TP.PF.2 ALIGNMENT OF UNCALIBRATED IMAGES FOR MULTI-VIEW CLASSIFICATION
Sercan Ömer Arık, Bilkent University, Turkey; Elif Vural, Ecole Polytechnique Federale de Lausanne, Switzerland; Pascal Frossard, Swiss Federal Institute of Technology - EPFL, Switzerland

14:20
TP.PF.3 DYNAMIC BACKGROUND SUBTRACTION USING MOMENTS
Romain Marie, MIS, France; Alexis Potelle, MIS, France; El Mustapha Mouaddib, MIS, France

14:20
TP.PF.4 BELIEF PROPAGATION WITH LOCAL EDGE DETECTION-BASED COST AGGREGATION FOR STEREO MATCHING
Fu He, Feipeng Da, Southeast University, P.R. China

14:20
TP.PF.5 DISCRIMINATION AND DESCRIPTION OF REPETITIVE PATTERNS FOR ENHANCING OBJECT RECOGNITION PERFORMANCE
Seong Jong Ha, Sang Hwa Lee, Nam-Ik Cho, Seoul National University, Korea

14:20
TP.PF.6 SPARSE REGRESSION ANALYSIS FOR OBJECT RECOGNITION
Baochang Zhang, Beihang University, P.R. China; Shengping Zhang, Harbin Institute of Technology, P.R. China; Jianzhuang Liu, The Chinese University of Hong Kong, Hong Kong

14:20
TP.PF.7 INTELLIGENT FILTERING BY SEMANTIC IMPORTANCE FOR SINGLE-VIEW 3D RECONSTRUCTION FROM SNOOKER VIDEO
Philip Legg, Matthew Parry, David Chung, Richard M. Jiang, Adrian Morris, Iwan Griffiths, Swansea University, United Kingdom; David Marshall, Cardiff University, United Kingdom; Min Chen, Swansea University, United Kingdom

14:20
TP.PF.8 PATTERN RECOGNITION USING ROTATION-INVARIANT FILTER-DRIVEN TEMPLATE MATCHING
Yi-Chong Zeng, Academia Sinica, Taiwan

14:20
TP.PF.9 3D SPATIO-TEMPORAL GRAPH CUTS FOR VIDEO OBJECTS SEGMENTATION
Zhiqiang Tian, Jianru Xue, Nanning Zheng, Xuguang Lan, Ce Li, Xi'an Jiaotong University, P.R. China

14:20
TP.PF.10 HIERARCHICAL INVARIANT SPARSE MODELING FOR IMAGE ANALYSIS
Leah Bar, Tel Aviv University, Israel; Guillermo Sapiro, University of Minnessotta, USA

(Continued on next page.)

(Continued from previous page)

14:20
TP.PF.11 **MULTI-SCALE ANALYSIS OF COLOR AND TEXTURE FOR SALIENT OBJECT DETECTION**
Ketan Tang, Oscar Au, Lu Fang, Zhiding YU, Yuanfang Guo, Hong Kong University of Science and Technology, Hong Kong

14:20
TP.PF.12 **OBJECT DETECTION USING DISCRIMINATIVE PHOTOGRAMMETRIC CONTEXT**
Yuanliu Liu, Xi'an Jiaotong University, P.R. China

14:20
TP.PF.13 **SEVERITY CLASSIFICATION OF ABNORMAL TRAFFIC EVENTS AT INTERSECTIONS**
Omer Akoz, Yildiz Technical University, Turkey; Elif Karslıgil, Yildiz Technical University, Turkey

14:20
TP.PF.14 **SOFT ASSIGNMENT OF VISUAL WORDS AS LINEAR COORDINATE CODING AND OPTIMISATION OF ITS RECONSTRUCTION ERROR**
Piotr Koniusz, Krystian Mikolajczyk, University of Surrey, United Kingdom

14:20
TP.PF.15 **ONE STEP BEYOND BAGS OF FEATURES: VISUAL CATEGORIZATION USING COMPONENTS**
Jing Liu, Chunjie Zhang, Institute of Automation, Chinese Academy of Sciences, P.R. China; Qi Tian, University of Texas at San Antonio, USA; Changsheng Xu, Hanqing Lu, Songde Ma, Institute of Automation, Chinese Academy of Sciences, P.R. China

14:20
TP.PF.16 **LINEAR SVM CLASSIFICATION USING BOOSTING HOG FEATURES FOR VEHICLE DETECTION IN LOW-ALTITUDE AIRBORNE VIDEOS**
Xianbin Cao, Beihang University, P.R. China; Changxia Wu, University of Science and Technology of China, P.R. China; Pingkun Yan, Chinese Academy of Sciences, P.R. China; Xuelong Li, Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Sciences, P.R. China

TP.PG Tuesday, September 13, 14:20-17:35

Image Retrieval (Poster)
Room: Grand Hall 2
Chair: Avideh Zakhor, University of California at Berkeley, USA

14:20
TP.PG.1 **SEMANTIC CLUSTERS BASED MANIFOLD RANKING FOR IMAGE RETRIEVAL**
Ran Chang, Xiaojun Qi, Utah State University, USA

14:20
TP.PG.2 **BROWSING CATALOGUE GRAPHS: CONTENT CACHING SUPERCHARGED!!**
Jacob Chakareski, EPFL, Switzerland

14:20
TP.PG.3 **MPEG-7 COMPLIANT GENERALIZED STRUCTURE DESCRIPTOR FOR STILL IMAGE INDEXING**
Constantin Vertan, University Politehnica of Bucharest, Romania; Marta Zamfir, Tessera Technologies, Inc., Romania; Alexandru Drimbarean, Tessera Ireland, Ireland; Adrian Zamfir, Tessera Technologies, Inc., Romania

14:20
TP.PG.4 **KEY FRAME EXTRACTION FROM CONSUMER VIDEOS USING SPARSE REPRESENTATION**
Mrityunjay Kumar, Alexander Loui, Eastman Kodak Company, USA

14:20
TP.PG.5 **ON THE USE OF CONCEPTUAL INFORMATION IN A CONCEPT-BASED IMAGE INDEXING AND RETRIEVAL FRAMEWORK**
Radi Jarrar, MONASH University, Malaysia; Mohammed Belkhatir, CNRS Lyon, France; Chris Messom, MONASH University, Malaysia

14:20
TP.PG.6 **IMPROVING IMAGE TAG RECOMMENDATION USING FAVORITE IMAGE CONTEXT**
Wonyong Eom, Sihyoung Lee, Wesley Marcel De Neve, Yong Man Ro, Korea Advanced Institute of Science and Technology (KAIST), Korea;

14:20
TP.PG.7 **QUERY SENSITIVE DYNAMIC WEB VIDEO THUMBNAIL GENERATION**
Chunxi Liu, Graduate University of Chinese Academy of Sciences, CAS, P.R. China; Qingming Huang, Graduate School of Chinese Academy of Sciences, P.R. China; Shuqiang Jiang, Institute of Computing Technology, Chinese Academy of Sciences, Beijing, P.R. China

14:20
TP.PG.8 **GRAPH-BASED MULTIPLE-INSTANCE LEARNING WITH INSTANCE WEIGHTING FOR IMAGE RETRIEVAL**
Fei Li, Fujitsu Research and Development Center Co., Ltd., P.R. China; Rujie Liu, Fujitsu Research & Development Co., Ltd, P.R. China

14:20
TP.PG.9 **IMAGE DATABASE CATEGORIZATION USING ROBUST UNSUPERVISED LEARNING OF FINITE GENERALIZED DIRICHLET MIXTURE MODELS**
Mohamed Ben Ismail, Hichem Frigui, University of Louisville, USA

(Continued on next page.)

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14:20
TP.PG.10 **WEAKLY SUPERVISED LOCALITY SENSITIVE HASHING FOR DUPLICATE IMAGE RETRIEVAL**
Cao Yudong, Zhang Honggang, Beijing University of Posts and Telecommunications, P.R. China; Jun Guo, BUPT, P.R. China

14:20
TP.PG.11 **FAST COMMON VISUAL PATTERN DETECTION VIA RADIATE GEOMETRIC MODEL**
Lingyang Chu, Institute of Computing Technology, Chinese Academy of Science, P.R. China; Shuqiang Jiang, Institute of Computing Technology, Chinese Academy of Sciences, Beijing, P.R. China; Qingming Huang, Graduate School of Chinese Academy of Sciences, P.R. China

14:20
TP.PG.12 **A NOVEL IMAGE IMPORTANCE MODEL FOR CONTENT-AWARE IMAGE RESIZING**
Wonjun Kim, Korea Advanced Institute of Science and Technology (KAIST), Korea

14:20
TP.PG.13 **MULTI-KEYFRAME ABSTRACTION FROM VIDEOS**
Ping Li, The Chinese University of Hong Kong, Hong Kong; Yanwen Guo, Nanjing University, P.R. China; H. Q. Sun, The Chinese University of Hong Kong, P.R. China

14:20
TP.PG.14 **SELECT INFORMATIVE FEATURES FOR RECOGNITION**
Zixuan Wang, Stanford University, USA

14:20
TP.PG.15 **A BALANCED SEMI-SUPERVISED HASHING METHOD FOR CBIR**
Jianhui Zhou, Dalian University of Technology, P.R. China; Haiyan Fu, Dalian University of Technology, P.R. China; Xiangwei Kong, Dalian University of Technology, P.R. China

WA.L1 Wednesday, September 14, 10:15-12:30

Recent Advances in Web-scale Image Annotation (Special Session)
Room: Silver Hall
Chair: Jinjun Wang, Epson Research and Development, USA

10:15
WA.L1.1 **LEARNING THE TRIP SUGGESTION FROM LANDMARK PHOTOS ON THE WEB**
Rongrong Ji, Columbia University, P.R. China; Ling-Yu Duan, Jie Chen, Shuang Yang, Peking University, P.R. China; Hongxun Yao, Harbin Institute of Technology, P.R. China; Tiejun Huang, Peking University, P.R. China; Wen Gao, ICT-ISVISION Joint R&D Laboratory for Face Recognition, CAS, P.R. China;

10:35
WA.L1.2 **ONLINE VICEPT LEARNING FOR WEB-SCALE IMAGE UNDERSTANDING**
Liang Li, Institute of Computing Technology, Chinese Academy of Sciences, P.R. China; Shuqiang Jiang, Institute of Computing Technology, Chinese Academy of Sciences, Beijing, P.R. China; Qingming Huang, Graduate School of Chinese Academy of Sciences, P.R. China

11:30
WA.L1.3 **REPRESENTATIVE SAMPLING WITH CERTAINTY PROPAGATION FOR IMAGE RETRIEVAL**
Jian Cheng, Chinese Academy of Sciences, P.R. China; Biao Niu, Hanqing Lu, the Institute of Automation, Chinese Academy of Sciences, P.R. China

11:50
WA.L1.4 **LEARNING SEMANTIC EMBEDDING AT A LARGE SCALE**
Min-Hsuan Tsai, University of Illinois at Urbana-Champaign, USA; Jinjun Wang, Epson Research and Development, USA; Tong Zhang, Rutgers University, USA; Yihong Gong, NEC Labs American, USA; Thomas S Huang, University of Illinois at Urbana-Champaign, USA

12:10
WA.L1.5 **DESCRIPTIVE LOCAL FEATURE GROUPS FOR IMAGE CLASSIFICATION**
Lei Yu, Jing Liu, Changsheng Xu, Institute of Automation, Chinese Academy of Sciences, P.R. China

WA.L2 Wednesday, September 14, 10:15-12:50

Video Quality Assessment (Lecture)
Room: 211/212
Chair: Marco Tagliasacchi, Politecnico di Milano, Italy

10:15
WA.L2.1 A SPATIOTEMPORAL MOST-APPARENT-DISTORTION MODEL FOR VIDEO QUALITY ASSESSMENT
Phong Vu, Oklahoma State University, USA; Cuong Vu, Oklahoma State University, USA; Damon Chandler, Oklahoma State University, USA

10:35
WA.L2.2 SPATIO-TEMPORAL QUALITY POOLING ACCOUNTING FOR TRANSIENT SEVERE IMPAIRMENTS AND EGOMOTION
Jin. C. Park, Yonsei Uni., Korea; Kalpana Seshadrinathan, Intel Corporation, USA; Sanghoon Lee, Yonsei University, Korea; Alan C Bovik, University of Texas at Austin, USA

11:30
WA.L2.3 MACHINE LEARNING BASED MODELING OF SPATIAL AND TEMPORAL FACTORS FOR VIDEO QUALITY ASSESSMENT
Manish Narwaria, Weisi Lin, Nanyang Technological University, Singapore

11:50
WA.L2.4 A NOVEL FULL-REFERENCE VIDEO QUALITY METRIC AND ITS APPLICATION TO WIRELESS VIDEO TRANSMISSION
Yang Peng, Technische Universität München, Germany; Eckehard Steinbach, Munich University of Technology, Germany

12:10
WA.L2.5 3D-DCT BASED PERCEPTUAL QUALITY ASSESSMENT OF STEREO VIDEO
Lina Jin, Atanas Boev, Atanas Gotchev, Karen Egiazarian, Tampere University of Technology, Finland

12:30
WA.L2.6 A PERCEPTUAL QUALITY ASSESSMENT METRIC USING TEMPORAL COMPLEXITY AND DISPARITY INFORMATION FOR STEREOSCOPIC VIDEO
Munchurl Kim, Korea Advanced Institute of Science and Technology, Korea

WA.L3 Wednesday, September 14, 10:15-12:50

Copy and Near-Duplicate Detection (Lecture)
Room: 214/216
Chair: Ebroul Izquierdo, Queen Mary, University of London, United Kingdom

10:15
WA.L3.1 COMMERCIAL MINING BASED ON TEMPORAL RECURRENCE HASHING ALGORITHM AND BAG-OF-FINGERPRINTS MODEL
Xiaomeng Wu, Shin'ichi Satoh, National Institute of Informatics, Japan

10:35
WA.L3.2 COPY DETECTION TOWARDS SEMANTIC MINING FOR VIDEO RETRIEVAL
Shikui Wei, Yao Zhao, Beijing Jiaotong University, P.R. China; Changsheng Xu, Institute of Automation, Chinese Academy of Sciences, P.R. China; Xu Dong, Powerlayer Microsystems, P.R. China

11:30
WA.L3.3 SALIENT COVARIANCE FOR NEAR-DUPLICATE IMAGE AND VIDEO DETECTION
Ligang Zheng, Sun Yat-sen University, P.R. China; Guoping Qiu, University of Nottingham, United Kingdom; Jiwu Huang, Sun Yat-sen University, P.R. China; Hao Fu, University of Nottingham, United Kingdom

11:50
WA.L3.4 SHAPE CONTEXT BASED IMAGE HASHING USING LOCAL FEATURE POINTS
Xudong Lv, Z. Jane Wang, University of British Columbia, Canada

12:10
WA.L3.5 PKUBENCH: A CONTEXT RICH MOBILE VISUAL SEARCH BENCHMARK
Rongrong Ji, Columbia University, P.R. China; Ling-Yu Duan, Jie Chen, Shuang Yang, Tiejun Huang, Peking University, P.R. China; Hongxun Yao, Harbin Institute of Technology, P.R. China; Wen Gao, ICT-ISVISION Joint R&D Laboratory for Face Recognition, CAS, P.R. China

12:30
WA.L3.6 FAST FACE SEQUENCE MATCHING IN LARGE-SCALE VIDEO DATABASES
Hung Thanh Vu, University of Science, Vietnam; Thanh Duc Ngo, The Graduate University for Advanced Studies, Japan; Thao-Ngoc Nguyen, University of Science, Vietnam; Duy-Dinh Le, National Institute of Informatics, Japan; Shin'ichi Satoh, National Institute of Informatics, Japan; Le Bac, University of Science, Vietnam; Anh Duc Duong, University of Science, VNU-HCM, Vietnam

WA.L4 Wednesday, September 14, 10:15-12:50

Image Denoising (Lecture)
Room: 213/215
Chair: Joel Trussell, NC State University, USA

10:15
WA.L4.1 PATCH-BASED LOCALLY OPTIMAL DENOISING
Priyam Chatterjee, Peyman Milanfar, University of California, Santa Cruz, USA

10:35
WA.L4.2 NONLINEAR CURVELET DIFFUSION FOR NOISY IMAGE ENHANCEMENT
Ying Li, Huijun Ning, Yanning Zhang, Northwestern Polytechnical University, P.R. China; David Dagan Feng, University of Sydney, Australia

11:30
WA.L4.3 MMSE NONLOCAL MEANS DENOISING ALGORITHM FOR POISSON NOISE REMOVAL
Chul Lee, Chulwoo Lee, Chang-Su Kim, Korea University, Korea

11:50
WA.L4.4 LEARNING A WAVELET TREE FOR MULTICHANNEL IMAGE DENOISING
Zhen James Xiang, Zhuo Zhang, Pingmei Xu, Peter Ramadge, Princeton University, USA

12:10
WA.L4.5 ROBUST SPARSE IMAGE DENOISING
Radovan Obradovic, RT-RK Novi Sad, Serbia; Marko Janev, Mathematical Institute of the Serbian Academy of Sciences and Arts, Serbia; Borislav Antic, University of Heidelberg, Germany; Vladimir Crnojević, Novi Sad, Serbia; Nemanja Petrovic, University of Novi Sad, Serbia

12:30
WA.L4.6 VIDEO DENOISING BASED ON TRANSFORM DOMAIN MINIMUM MEAN SQUARE ERROR
Dai, Oscar Au, Chao Pang, Feng Zou, Hong Kong University of Science and Technology, Hong Kong

WA.L5 Wednesday, September 14, 10:15-12:50

3D Video Processing and Rendering (Lecture)
Room: The Arc
Chair: Lina Karam, Arizona State University, USA

10:15
WA.L5.1 SCRIBBLE BASED INTERACTIVE 3D RECONSTRUCTION VIA SCENE CO-SEGMENTATION
Adarsh Kowdle, Yao-Jen Chang, Cornell University, USA; Dhruv Batra, Carnegie Mellon University, USA; Tsuhan Chen, Cornell University, USA

10:35
WA.L5.2 ADAPTIVE PLENOPTIC SAMPLING
Christopher Gilliam, Pier Luigi Dragotti, Mike Brookes, Imperial College London, United Kingdom

11:30
WA.L5.3 EFFICIENT DEPTH BLURRING WITH OCCLUSION HANDLING
Tim Popkin, QMUL, United Kingdom; Andrea Cavallaro, Queen Mary, University of London, United Kingdom; David Hands, British Telecomunnications plc, United Kingdom

11:50
WA.L5.4 A NEW MULTIDIRECTIONAL EXTRAPOLATION HOLE-FILLING METHOD FOR DEPTH-IMAGE-BASED RENDERING
Lai Man Po, City University of Hong Kong, Hong Kong; Shihang Zhang, Shenzhen Graduate School of Peking University, P.R. China; Xuyuan XU, City University of Hong Kong, Hong Kong; Yuesheng Zhu, Shenzhen Graduate School, Peking University, P.R. China

12:10
WA.L5.5 PARAMETERIZATION AND APPEARANCE PRESERVING ON CUBIC CELLS FOR 3D DIGITAL PRESERVATION OF CULTURAL HERITAGE
Karl Apaza-Agüero, Luciano Silva, Olga R Bellon, Universidade Federal do Paraná, Brazil

12:30
WA.L5.6 CAN 3D SYNTHESIZED VIEWS BE RELIABLY ASSESSED THROUGH USUAL SUBJECTIVE AND OBJECTIVE EVALUATION PROTOCOLS?
Emilie Bosc, Institut National des Sciences Appliquées de Rennes (INSA de Rennes), France; Martin Köppel, Fraunhofer Institut for Telecomunications, Heinrich-Hertz-Institut, Germany; Romuald Pépion, IRCCyN, Université de Nantes, France; Muriel Pressigout, IETR / INSA de Rennes, France; Luce Morin, INSA-Rennes, France; Patrick Ndjiki-Nya, Fraunhofer-Gesellschaft, Germany; Patrick Lecallet, IRCCYN, France

WA.L6 Wednesday, September 14, 10:15-12:50

Exploiting and Analyzing Text in Electronic Images (Lecture)
Room: Hall 300
Chair: Vishal Monga, Pennsylvania State University, USA

10:15
WA.L6.1 MOBILE VISUAL SEARCH ON PRINTED DOCUMENTS USING TEXT AND LOW BIT-RATE FEATURES
Sam S Tsai, Huizhong Chen, David M Chen, Stanford University, USA; Georg Schroth, Technische Universität München, Germany; Radek Grzeszczuk, Nokia Research Center, USA; Bernd Girod, Stanford University, USA

10:35
WA.L6.2 A NEW HYBRID METHOD TO DETECT TEXT IN NATURAL SCENE
Gang Zhou, Yuehu Liu, Zhiqiang Tian, Yuanqi Su, Xi'an Jiaotong University, P.R. China

11:30
WA.L6.3 ROBUST TEXT DETECTION IN NATURAL IMAGES WITH EDGE-ENHANCED MAXIMALLY STABLE EXTREMAL REGIONS
Huizhong Chen, Stanford University, USA; Sam S Tsai, Stanford University, USA; Georg Schroth, Technische Universität München, Germany; David M Chen, Stanford University, USA; Radek Grzeszczuk, Nokia Research Center, USA; Bernd Girod, Stanford University, USA

11:50
WA.L6.4 HANDWRITTEN CONNECTED DIGITS DETECTION: AN APPROACH USING INSTANCE SELECTION
Cristiano Pereira, Federal University of Pernambuco, Brazil; George D. C. Cavalcanti, Federal University of Pernambuco, Brazil

12:10
WA.L6.5 A ROBUST SKEW DETECTION METHOD BASED ON MAXIMUM GRADIENT DIFFERENCE AND R-SIGNATURE
Mehdi Felhi, University Nancy 2, France; Nicolas Bonnier, Océ - Canon Group, France; Salvatore Tabbone, University Nancy 2, France

12:30
WA.L6.6 AUTOMATED IMAGE QUALITY ASSESSMENT FOR CAMERA-CAPTURED OCR
Xujun Peng, BBN Technologies, USA; Huaigu Cao, Krishna Subramanian, Raytheon BBN Technologies, USA; Rohit Prasad, Premkumar Natarajan, BBN Technologies, USA

WA.L7 Wednesday, September 14, 10:15-12:50

Distributed Video Coding (Lecture)
Room: 311/312
Chair: Ricardo de Queiroz, University of Brasil, Brazil

10:15
WA.L7.1 PROGRESSIVE CORRELATION NOISE REFINEMENT FOR TRANSFORM DOMAIN WYNER-ZIV VIDEO CODING
Juan Song, Keyan Wang, Haiying Liu, State Key Lab. of Integrated Service Networks, Xidian University, P.R. China; Yunsong Li, Xidan University, P.R. China; Chengke Wu, State Key Laboratory of ISN, XI'DIAN University, P.R. China

10:35
WA.L7.2 SCALABLE DISTRIBUTED VIDEO CODING USING COMPRESSED SENSING IN WAVELET DOMAIN
Xuqi Zhu, Lin Zhang, Yu Liu, Beijing University of Posts and Telecommunications, P.R. China

11:30
WA.L7.3 GLOBAL MOTION GUIDED ADAPTIVE TEMPORAL INTER- / EXTRAPOLATION FOR SIDE INFORMATION GENERATION IN DISTRIBUTED VIDEO CODING
Ralph Hänsel, Erika Müller, University of Rostock, Germany

11:50
WA.L7.4 PARALLEL ITERATIVE DECODING OF TRANSFORM DOMAIN WYNER-ZIV VIDEO USING CROSS BITPLANE CORRELATION
Huynh Luong, Xin Huang, Soren Forchhammer, Technical University of Denmark, Denmark

12:10
WA.L7.5 IMPROVED WYNER-ZIV VIDEO CODING EFFICIENCY USING BIT PLANE PREDICTION
Jeffrey Micallef, Reuben A. Farrugia, Carl J. Debono, University of Malta, Malta

12:30
WA.L7.6 ONBOARD LOW-COMPLEXITY COMPRESSION OF SOLAR IMAGES
Shuang Wang, Lijuan Cui, Samuel Cheng, University of Oklahoma, USA; Lina Stankovic, University of Strathclyde, United Kingdom; Vladimir Stankovic, University of Strathclyde, United Kingdom

WA.L8 Wednesday, September 14, 10:15-12:50

MRI: Cardiac and Neural Applications (Lecture)
Room: 314/316
Chair: Ali Bilgin, ECE Dept, The University of Arizona, USA

10:15
WA.L8.1 A NOVEL APPROACH FOR ACCURATE ESTIMATION OF LEFT VENTRICLE GLOBAL INDEXES FROM SHORT-AXIS CINE MRI
Fahmi Khalifa, Bioimaging Laboratory, USA; Garth Beache, Diagnostic Radiology Department, USA; Georgy Gimel'farb, University of Auckland, USA; Ayman Sabry El-Baz, University of Louisville, USA

10:35
WA.L8.2 IDENTIFICATION OF CONTINUOUS CARDIAC DYNAMICS AND ABNORMAL MATERIAL PROPERTIES
Zhang Heye, Shenzhen Institutes of Advanced Technology, P.R. China

11:30
WA.L8.3 AORTA SEGMENTATION USING THE WATERSHED ALGORITHM FOR AN AUGMENTED REALITY SYSTEM IN LAPAROSCOPIC SURGERY
Fernando López-Mir, Universidad Politécnica de Valencia, Spain; Valery Naranjo, Universidad Politecnica de Valencia, Spain; Jesus Angulo, MINES Paristech, France; Eliseo Villanueva, Universidad Politécnica de Valencia, Spain; Mariano Alcañiz, Universidad Politécnica de Valencia, Spain; Susana López-Celada, Hospital Clínica Benidorm, Unidad Resonancia Magnética, INNSCANER, Spain

11:50
WA.L8.4 AUTOMATIC SUBCORTICAL TISSUE SEGMENTATION OF MR IMAGES USING OPTIMUM-PATH FOREST CLUSTERING
Fábio Cappabianco, Jaime Ide, Federal University of São Paulo, Brazil; Alexandre Falcão, Institute of Computing, University of Campinas, Brazil; Chiang-shan Li, Yale University, USA

12:10
WA.L8.5 3D SHAPE ANALYSIS OF THE BRAIN CORTEX WITH APPLICATION TO DYSLEXIA
Matthew J Nitzken, Manuel Casanova, University of Louisville, USA; Georgy Gimel'farb, University of Auckland, USA; Ahmed Elnakib, Bioimaging Lab, USA; Fahmi Khalifa, Bioimaging Laboratory, USA; Andy Switala, Ayman Sabry El-Baz, University of Louisville, USA

12:30
WA.L8.6 DETECTION OF RESTING-STATE BRAIN ACTIVITY IN MAGNETIC RESONANCE IMAGES THROUGH WAVELET FEATURE CLUSTER ANALYSIS
Geert Verdoolaege, Ghent University, Belgium; Leslie Vlerick, Ghent University Hospital, Belgium; Eric Achten, Ghent University Hospital, Belgium

WA.PA Wednesday, September 14, 10:15-12:50

Sparse Estimation (Poster)
Room: Grand Hall 2
Chair: Joseph P. Havlicek, University of Oklahoma, USA

10:15
WA.PA.1 TOTAL VARIATION-WAVELET-CURVELET REGULARIZED OPTIMIZATION FOR IMAGE RESTORATION
Shunsuke Ono, Takamichi Miyata, Katsunori Yamaoka, Tokyo Institute of Technology, Japan

10:15
WA.PA.2 IMAGE RECONSTRUCTION FROM COMPRESSED LINEAR MEASUREMENTS WITH SIDE INFORMATION
Vijayaraghavan Thirumalai, EPFL, Switzerland; Pascal Frossard, Swiss Federal Institute of Technology - EPFL, Switzerland

10:15
WA.PA.3 MULTITEMPORAL IMAGE CHANGE DETECTION WITH COMPRESSED SPARSE REPRESENTATION
Leyuan Fang, Shutao Li, Jianwen Hu, Hunan University, P.R. China

10:15
WA.PA.4 SINGLE-VIEW RECONSTRUCTION FROM AN UNKNOWN SPHERICAL MIRROR
Zhihu Chen, Kwan-Yee Kenneth Wong, Miaomiao Liu, Dirk Schnieders, The University of Hong Kong, Hong Kong

10:15
WA.PA.5 OPTICAL FLOW ESTIMATION USING SPARSE GRADIENT REPRESENTATION
Muhammad Nawaz, Abdesselam Bouzerdoum, Son Lam Phung, University of Wollongong, Australia

10:15
WA.PA.5 LUMINANCE CONSTRAINED TOTAL VARIATION AND ITS APPLICATION FOR OPTIMIZED DECODING OF JPEG 2000
Takamichi Miyata, Yoshinori Sakai, Tokyo Institute of Technology, Japan

10:15
WA.PA.6 MODIFIED-CS-RESIDUAL FOR RECURSIVE RECONSTRUCTION OF HIGHLY UNDERSAMPLED FUNCTIONAL MRI SEQUENCES
Wei Lu, Taoran Li, Iowa State University, USA; Ian Atkinson, University of Illinois at Chicago, USA; Namrata Vaswani, Iowa State University, USA

10:15
WA.PA.7 SPARSE REPRESENTATION BASED BAND SELECTION FOR HYPERSPECTRAL IMAGES
Shuangjiang Li, University of Tennessee at Knoxville, USA; Hairong Qi, the University of Tennessee, USA

10:15
WA.PA.8 TOTAL-VARIATION REGULARIZED MOTION ESTIMATION IN A PERIODIC IMAGE SEQUENCE
Wenyuan Qi, Xiaofeng Niu, Yongyi Yang, Illinois Institute of Technology, USA

10:15
WA.PA.9 3D IMAGE RECONSTRUCTION FROM SPARSE MEASUREMENT OF WIDEBAND MILLIMETER WAVE SAR EXPERIMENTS
Hamed Kajbaf, Joseph Case, Yahong Rosa Zheng, Missouri University of Science and Technology, USA

(Continued on next page.)

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10:15
WA.PA.10 COMPRESSIVE PASSIVE MILLIMETER-WAVE IMAGING
Sevket Derin Babacan, Martin Luessi, Leonidas Spinoulas, Aggelos K. Katsaggelos, Northwestern University, USA; Nachappa Gopalsami, Thomas W Elmer, Ryan Ahern, Shaolin Liao, Apostolos Raptis, Argonne National Laboratory, USA

10:15
WA.PA.11 HYBRID BLIND DECONVOLUTION OF IMAGES USING VARIABLE SPLITTING AND PROXIMAL POINT METHODS
Sudipto Dolui, Oleg Michailovich, University of Waterloo, Canada

10:15
WA.PA.12 A NEW BLOCK COMPRESSIVE SENSING TO CONTROL THE NUMBER OF MEASUREMENTS
Hyungkeuk Lee, Yonsei University, Korea; Heeseok Oh, Wireless Network Lab., Yonsei University, Korea; Sanghoon Lee, Yonsei University, Korea

10:15
WA.PA.13 A MEMORY GRADIENT ALGORITHM FOR L2-L0 REGULARIZATION WITH APPLICATIONS TO IMAGE RESTORATION
Emilie Chouzenoux, Université Paris-Est Marne-la-Vallée, France; Jean-Christophe Pesquet, University Paris-Est, France; Hugues Talbot, Université Paris Est, France; Anna Jezierska, Université Paris-Est Marne-la-Vallée, France

WA.PB Wednesday, September 14, 10:15-12:50

Data Hiding and Media Security (Poster)
Room: Grand Hall 2
Chair: Alessandro Piva, University of Florence, Italy

10:15
WA.PB.1 AN EFFECTIVE IMAGE STEGANALYSIS METHOD BASED ON NEIGHBORHOOD
Qingxiao Guan, University of Science and Technology of China, P.R. China; Jing Dong, Institute of Automation, Chinese Academy of Sciences, P.R. China; Tieniu Tan, NLPR, P.R. China

10:15
WA.PB.3 FREQUENCY DOMAIN INFRARED WATERMARKING FOR PRINTED CMYK IMAGE
Yonghui Zhao, Xerox Research Center Webster, USA; Zhigang Fan, Xerox Corporation, USA; Martin Hoover, Xerox Research Center Webster, USA

10:15
WA.PB.4 AFFINE TRANSFORMATION INVARIANT IMAGE WATERMARKING USING MOMENT NORMALIZATION AND RADIAL SYMMETRY TRANSFORM
Athanasios Nikolaidis, Technological Educational Institute of Serres, Greece

10:15
WA.PB.5 COMPRESSION AND PROTECTION OF JPEG IMAGES
Yi-Chong Zeng, Academia Sinica, Taiwan; Fay Huang, National Ilan University, Taiwan; Mark Liao, Academia Sinica, Taiwan

10:15
WA.PB.6 SECURE JPEG STEGANOGRAPHY BY LSB+ MATCHING AND MULTI-BAND EMBEDDING
Hao-tian Wu, Sun Yat-Sen University, P.R. China; Jiwu Huang, Sun Yat-sen University, P.R. China

10:15
WA.PB.7 REVERSIBLE WATERMARKING BASED ON GENERALIZED HISTOGRAM SHIFTING
Mohammad Arabzadeh, Mohammad Sadegh Helfroush, Habibollah Danyali, Keyvan Kasiri, Shiraz University of Technology, Iran

10:15
WA.PB.9 ROBUST WATERMARK EXTRACTION USING SVD-BASED DYNAMIC STOCHASTIC RESONANCE
Rajlaxmi Chouhan, Rajib Kumar Jha, PDPM Indian Institute of Information Technology, Design & Manufacturing Jabalpur, India; Apoorv Chaturvedi, PDPM IIITDM Jabalpur, India; Toshihiko Yamasaki, The University of Tokyo, Japan; Kiyoharu Aizawa, University of Tokyo, Japan

10:15
WA.PB.10 IMPROVED MULTIPLICATIVE SPREAD SPECTRUM EMBEDDING FOR IMAGE DATA HIDING
Amir Valizadeh, University of British Columbia, Canada; Z. Jane Wang, University of British Columbia, Canada

10:15
WA.PB.11 COUNTERMEASURE OF RE-RECORDING PREVENTION AGAINST ATTACK WITH SHORT WAVELENGTH PASS FILTER
Takayuki Yamada, Graduate University for Advanced Studies, Japan; Gohshi Seiichi, Sharp Corporation, Japan; Isao Echizen, National Institute of Informatics (NII), Japan

(Continued on next page.)

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10:15
WA.PB.12 A NEW BLIND ROBUST IMAGE WATERMARKING SCHEME IN SVD-DCT COMPOSITE DOMAIN
Zhen Li, NTU, Singapore; Kim Hui Yap, Nanyang Technological University, Singapore; Ying Lei, School of EEE, Nanyang Technological University, Singapore

10:15
WA.PB.13 VIRTUAL VIEW INVARIANT DOMAIN FOR 3D VIDEO BLIND WATERMARKING
Javier Franco-Contreras, Technicolor, France; Séverine Baudry, Technicolor, France; Gwenael J Doërr, Technicolor, France

10:15
WA.PB.14 A NOVEL APPROACH TO ADAPTIVE IMAGE AUTHENTICATION
Pawel Korus, AGH University of Science and Technology, Poland; Andrzej Dziech, AGH University of Science and Technology, Poland

10:15
WA.PB.15 A COLLUSION RESILIENT KEY MANAGEMENT SCHEME FOR MULTI-DIMENSIONAL SCALABLE MEDIA ACCESS CONTROL
Xinglei Zhu, State University of New York at Buffalo, USA; Chang Wen Chen, State University of New York at Buffalo, USA

10:15
WA.PB.16 SYNCHRONIZATION OF TEXTURE AND DEPTH MAP BY DATA HIDING FOR 3D H.264 VIDEO
Zafar Shahid, LIRMM, France; William Puech, University of Montpellier, France

WA.PC Wednesday, September 14, 10:15-12:50

Remote Sensing an Geophysical Imaging (Poster)
Room: Grand Hall 2
Chair: James Fowler, Mississippi State University, USA

10:15
WA.PC.1 A NEW APPROACH TO THE AUTOMATED MAPPING OF POCKMARKS IN MULTI-BEAM BATHYMETRY
Richard Harrison, University of East Anglia, United Kingdom; Valerie Bellec, Norges Geologiske Undersekelse (NGU), Trondheim, Norway; Dave Mann, Gardline Geosurvey, United Kingdom; Wenjia Wang, University of East Anglia, United Kingdom

10:15
WA.PC.2 RADIO ASTRONOMICAL IMAGE DECONVOLUTION USING PROLATE SPHEROIDAL WAVE FUNCTIONS
Sarod Yatawatta, Kapteyn Institute/ASTRON, The Netherlands

10:15
WA.PC.3 GLOBALLY OPTIMAL RECONSTRUCTION OF MILLIMETER-WAVE RADIOMETRIC IMAGES WITH BELIEF PROPAGATION
Michel Sarkis, Murat Shahrashoub, Sony Deutschland Gmbh, Germany

10:15
WA.PC.4 ADAPTIVE PATCHES FOR CHANGE DETECTION
Xing Gong, Insitute of Automation, Chinese Academy of Science, P.R. China; Thomas Corpetti, CNRS - University Rennes 2, France

10:15
WA.PC.6 CASCADED ACTIVE LEARNING FOR OBJECT RETRIEVAL USING MULTISCALE COARSE TO FINE ANALYSIS
Pierre Blanchart, Télécom ParisTech, France; Marin Ferecatu, CNAM, France

10:15
WA.PC.7 COMPONENT-BASED RESTORATION OF SPECKLED IMAGES
Vishal Patel, University of Maryland, USA; Glenn Easley, University of Maryland, USA; Rama Chellappa, University of Maryland, USA

10:15
WA.PC.8 ESTIMATION OF AN OPTIMAL SPECTRAL BAND COMBINATION TO EVALUATE SKIN DISEASE TREATMENT EFFICACY USING MULTI-SPECTRAL IMAGES
Sylvain Prigent, INRIA Sophia Antipolis, France; Didier Zugaj, Galderma, France; Xavier Descombes, INRIA, France; Philippe Martel, Galderma, France; Josiane Zerubia, INRIA, Sophia Antipolis, France

10:15
WA.PC.9 SEGMENTING EXTENDED STRUCTURES IN RADIO ASTRONOMICAL IMAGES BY FILTERING BRIGHT COMPACT SOURCES AND USING WAVELETS DECOMPOSITION
Marta Peracaula, Arnau Oliver, Albert Torrent, Xavier Lladó, University of Girona, Spain; Jordi Freixenet, University of Girona, USA; Joan Martí, University of Girona, Spain

10:15
WA.PC.10 GROUND TOPOGRAPHY ESTIMATION OVER FORESTS USING POLINSAR IMAGE BY MEANS OF COHERENCE SET
Bin Zou, Da Lu, Hongjun Cai, Ye Zhang, Harbin Institute of Technology, P.R. China

(Continued on next page.)

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10:15
WA.PC.11 A FAST MULTIPLE BIRTH AND CUT ALGORITHM USING BELIEF PROPAGATION
Ahmed Gamal-Eldin, INRIA Sophia Antipolis, France; Xavier Descombes, INRIA, France; Guillaume Charpiat, INRIA, Sophia Antipolis, France; Josiane Zerubia, INRIA, Sophia Antipolis, France

10:15
WA.PC.12 FAST MODEL OF SPACE-VARIANT BLURRING AND ITS APPLICATION TO DECONVOLUTION IN ASTRONOMY
Loïc Denis, Centre de Recherche Astrophysique de Lyon, France; Eric T hiébaut, Centre de Recherche Astrophysique de yon, France; Ferreol Soulez, Universite Lyon 1, France

10:15
WA.PC.13 ROBUST AIRPLANE DETECTION IN SATELLITE IMAGES
Li Wei, NLPR, Shiming Xiang, Haibo Wang, Chunhong Pan, Institute of Automation, Chinese Academy of Sciences, P.R. China

10:15
WA.PC.14 EXTRACTING SALIENT CONTOUR GROUPS FROM CLUTTERED SOLAR IMAGES VIA MARKOV RANDOM FIELDS
Nurcan Durak, Olfa Nasraoui, University of Louisville, USA

10:15
WA.PC.15 RESOLUTION ASSESSMENT IN DYNAMIC IMAGE FORMATION
Mark D. Butala, Jet Propulsion Laboratory, USA

WA.PD Wednesday, September 14, 10:15-12:50

Image Segmentation (Poster)
Room: Grand Hall 2
Chair: Josiane Zerubia, INRIA, Sophia Antipolis, France

10:15
WA.PD.1 TENSOR VECTOR FIELD BASED ACTIVE CONTOURS
Abhishek Kumar, Alexander Wong, Akshaya Mishra, David Clausi, Paul Fieguth, University of Waterloo, Canada

10:15
WA.PD.2 EDLINES: REALTIME LINE SEGMENT DETECTION BY EDGE DRAWING (ED)
Cuneyt Akinlar, Cihan Topal, Anadolu University, Turkey

10:15
WA.PD.3 INCREMENTAL LOCAL HOUGH TRANSFORM FOR LINE SEGMENT EXTRACTION
Rui Guerreiro, Pedro Aguiar, Institute for Systems and Robotics / Instituto Superior Técnico, Portugal

10:15
WA.PD.4 GENERAL ADAPTIVE DISTANCE TRANSFORMS ON GRAY TONE IMAGES: APPLICATION TO IMAGE SEGMENTATION
Jean-Charles Pinoli, Johan Debayle, Ecole Nationale Supérieure des Mines, France

10:15
WA.PD.5 IMAGE SUPER-SEGMENTATION: SEGMENTATION WITH MULTIPLE LABELS FROM SHUFFLED OBSERVATIONS
Jorge S. Marques, Instituto Superior Técnico, Portugal; Mario A. T. Figueiredo, Instituto Superior Técnico, Portugal

10:15
WA.PD.6 IMPROVED FORCE FIELD FOR VECTOR FIELD CONVOLUTION METHOD
Andrea Kovacs, Pazmany Peter Catholic University, Hungary; Tamas Szirányi, Computer and Automation Research Institute of the Hungarian Academy of Sciences, Hungary

10:15
WA.PD.7 SEMI-AUTOMATIC 3-D SEGMENTATION OF COMPUTED TOMOGRAPHIC IMAGERY BY ITERATIVE GRADIENT-DRIVEN VOLUME GROWING
Sreenath Rao Vantaram, Eli Saber, Sohail A Dianat, Yang Hu, Rochester Institute of Technology, USA; Vishwas Abhyankar, DataPhysics Research Incorporation, USA

10:15
WA.PD.8 ROBUST SEGMENTATION OF RELEVANT REGIONS IN LOW DEPTH OF FIELD IMAGES
Franz Graf, Hans-Peter Kriegel, Michael Weiler, Ludwig-Maximilians-Universität München, Germany

10:15
WA.PD.9 MULTICOLOR IMAGE SEGMENTATION USING AMBROSIO-TOR TORELLI APPROXIMATION
Takeshi Asahi, Jaime Ortega, Rodrigo Lecaros, University of Chile, Chile

(Continued on next page.)

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10:15
WA.PD.10 SUPERVISED TEXTURE SEGMENTATION THROUGH A MULTI-LEVEL PIXEL-BASED CLASSIFIER BASED ON SPECIFICALLY DESIGNED FILTERS
Jaime Melendez, Xavier Girones, Universitat Rovira i Virgili, Spain; Domenec Puig, University Rovira i Virgili, Spain

10:15
WA.PD.11 A NEW INFORMATION FUSION APPROACH FOR IMAGE SEGMENTATION
Wentao Xu, Ratchadaporn Kanawong, University of Missouri-Columbia, USA; Ye Duan, University of Missouri, USA; Guixu Zhang, East China Normal University, P.R. China

10:15
WA.PD.12 ROBUST FREE SPACE SEGMENTATION USING ACTIVE CONTOURS AND MONOCULAR OMNIDIRECTIONAL VISION
Pauline Merveilleux, France, France; Ouiddad Labbani-Igbida, MIS, France; El Mustapha Mouaddib, MIS, France

10:15
WA.PD.13 HIGHER ORDER POTENTIALS WITH SUPERPIXEL NEIGHBOURHOOD (HSN) FOR SEMANTIC IMAGE SEGMENTATION
Mostafa S Ibrahim, Microsoft, Egypt; Motaz El-Saban, Microsoft Research - Cairo Innovation Lab, Egypt

10:15
WA.PD.14 SEMI-AUTOMATIC TEXTURE SEGMENTATION FOR SINGLE IMAGES
Yusuf Artan, Illinois Institute of Technology, USA; Selcen Artan, Siemens, Turkey

10:15
WA.PD.15 AN INTENSITY-GRADIENT-TEXTURE GUIDED METHODOLOGY FOR SPATIAL SEGMENTATION OF REMOTELY SENSED MULTI/HYPERSPECTRAL IMAGERY
Sreenath Rao Vantaram, Eli Saber, David Messinger, Rochester Institute of Technology, USA

WA.PE Wednesday, September 14, 10:15-12:50

Image Analysis (Poster)
Room: Grand Hall 2
Chair: Tsuhan Chen, Cornell University, USA

10:15
WA.PE.1 NONPARAMETRIC POLYGONAL AND MULTIMODEL APPROXIMATION OF DIGITAL CURVES WITH RATE-DISTORTION CURVE MODELING
Alexander Kolesnikov, University of Eastern Finland, Finland

10:15
WA.PE.3 CONCENTRIC RING SIGNATURE DESCRIPTOR FOR 3D OBJECTS
Hien Van Nguyen, University of Maryland, USA; Fatih Porikli, Mitsubishi Electric Research Laboratories, USA

10:15
WA.PE.4 EDGELET TRACKING USING GAUSS-LAGUERRE CIRCULAR HARMONIC FILTERS
Lorenzo Sorgi, Via Maiorise, Italy

10:15
WA.PE.5 GRAPH-BASED SHAPE MATCHING FOR DEFORMABLE OBJECTS
Hanbyul Joo, Electronics and Telecommunications Research Institute, Korea; Yekeun Jeong, KAIST, Korea; Olivier Duchenne, Ecole Normale Superieure, France; In So Kweon, Korea Advanced Institute of Science and Technology (KAIST), Korea

10:15
WA.PE.6 CHANGE-DETECTION BASED ON SUPPORT VECTOR DATA DESCRIPTION HANDLING DEPENDENCY
Akram Belghith, University of Strasbourg, France; Christophe Collet, Louis Pasteur University, France; Jean Paul Armspach, University of Strasbourg, France

10:15
WA.PE.7 BOSSA: EXTENDED BOW FORMALISM FOR IMAGE CLASSIFICATION
Sandra Avila, Nicolas Thome, University Pierre et Marie Curie, France; Matthieu Cord, UPMC Paris 6, France; Eduardo Valle, State University of Campinas, Brazil; Arnaldo Araujo, Federal University of Minas Gerais, Brazil

10:15
WA.PE.9 OBJECT COLOR CATEGORIZATION IN SURVEILLANCE VIDEOS
Yimeng Zhang, Cornell University, USA; Cheng-Chuan Chou, Shiaw-Shian Yu, Industrial Technology Research Institute, Taiwan; Tsuhan Chen, Cornell University, USA

10:15
WA.PE.10 RECONSTRUCTING THE DRAWING PROCESS OF REPRODUCTIONS FROM MEDIEVAL IMAGES
Antonio Monroy, IWR - University of Heidelberg, Germany; Bernd Carqué, University of Heidelberg, Germany; Björn Ommer, IWR - University of Heidelberg, Germany

10:15
WA.PE.11 PRELIMINARY STUDY ON STATISTICAL SHAPE MODEL APPLIED TO DIAGNOSIS OF LIVER CIRRHOSIS
Shinya Kohara, Ritsumeikan University, Japan

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10:15
WA.PE.12 FAST APPROXIMATION FOR GEOMETRIC CLASSIFICATION OF LIDAR RETURNS
Xiaozhe Shi, Avideh Zakhor, University of California at Berkeley, USA

10:15
WA.PE.13 EXTRACTION OF ROAD NETWORK USING A MODIFIED ACTIVE CONTOUR APPROACH
Said Mssedi, EPT, Tunisia; Mohamed Ben Salah, INRS, Canada; Riadh Abdelfattah, Ecole Supérieure des Communications, Tunisia; Amar Mitiche, Institut National de la Recherche Scientifique (INRS), Canada

10:15
WA.PE.14 REGRESSION-BASED OBJECT SHAPE ESTIMATION USING A SHAPE-MANIFOLD
Kota Hara, Takaharu Kurokawa, SECOM CO., LTD, Japan

10:15
WA.PE.15 UNIQUENESS FOR SHAPE FROM SHADING VIA PHOTOMETRIC STEREO TECHNIQUE
Roberto Mecca, Sapienza - University of Rome, Italy

WA.PF Wednesday, September 14, 10:15-12:50

Video Surveillance and Video Conferencing (Poster)
Room: Grand Hall 2
Chair: Ed Delp, Purdue University, USA

10:15
WA.PF.1 REAL-TIME CLOTHING RECOGNITION IN SURVEILLANCE VIDEOS
Ming Yang, Kai Yu, NEC Laboratories America, USA

10:15
WA.PF.2 REAL-TIME TRAFFIC ANALYSIS AT NIGHT-TIME
Jose M. Mossi, Polytechnic University of Valencia, Spain; Alberto Albiol, Universidad Politecnica de Valencia, Spain; Antonio Albiol, Universidad Politecnica Valencia, Spain; Valery Naranjo Ornedo, Polytechnic University of Valencia, Spain

10:15
WA.PF.3 A VIDEO ANALYTICS FRAMEWORK FOR AMORPHOUS AND UNSTRUCTURED ANOMALY DETECTION
Martin Mueller, Peter Karasev, Ivan Kolesov, Allen Tannenbaum, Georgia Institute of Technology, USA

10:15
WA.PF.4 PTZ CAMERA-BASED ADAPTIVE PANORAMIC AND MULTI-LAYERED BACKGROUND MODEL
Kang Xue, Georgia Institute of Technology, USA

10:15
WA.PF.5 BACKGROUND SUBTRACTION THROUGH MULTIPLE LIFE SPAN MODELING
Junliang Xing, Liwei Liu, Haizhou Ai, Tsinghua University, P.R. China

10:15
WA.PF.6 COMMON VISUAL PATTERN DISCOVERY VIA DIRECTED GRAPH MODEL
Chen Wang, Kai-Kuang Ma, Nanyang Technological University, Singapore

10:15
WA.PF.7 VISUAL FRAMING FEEDBACK FOR DESKTOP VIDEO CONFERENCING
Chen Wu, Google Inc., USA; Ramin Samadani, Hewlett-Packard Laboratories, USA; April Slayden Mitchell, Hewlett-Packard, USA; Mary G. Baker, HP Labs, USA; Dan Gelb, Hewlett-Packard Labs, USA

10:15
WA.PF.8 AN UNORTHODOX APPROACH TOWARDS SHAPE FROM FOCUS
Mannan Muhammad, Tae-Sun Choi, Gwangju Institute of Science and Technology, Korea

10:15
WA.PF.9 A NOVEL FRAMEWORK FOR AUTOMATIC PASSENGER COUNTING
Sataruppa Mukherjee, Baidya Nath Saha, University of Alberta, Canada; Iqbal Jamal, AQL Management Consulting Inc., Canada; Richard Leclerc, City of Edmonton, Canada; Nilanjan Ray, University of Alberta, Canada

10:15
WA.PF.10 FIRE SCENE SEGMENTATIONS FOR FOREST FIRE CHARACTERIZATION: A COMPARATIVE STUDY
Jean-François Collumeau, University of Orléans, France; Helene Laurent, ENSI de Bourges, France; Adel Hafiane, ENSI de Bourges - Institut PRISME, France; Khaled Chetehouna, ENSI de Bourges, France

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10 10:15

WA.PF.11 SEMI-SUPERVISED LEARNING WITH KERNEL LOCALITY-CONSTRAINED LINEAR CODING
Yao-Jen Chang, Tsuhan Chen, Cornell University, USA

10:15

WA.PF.12 SOFTFERNS FOR HOMOGRAPHY ESTIMATION
ShaoGuo Liu, Haibo Wang, Jixia Zhang, Institute of Automation, Chinese Academy of Sciences, P.R. China; Franck Davoine, CNRS, P.R. China; Chunhong Pan, Institute of Automation, Chinese Academy of Sciences, P.R. China

10:15

WA.PF.13 AUTOMATIC IMAGE ORIENTATION DETECTION WITH PRIOR HIERARCHICAL CONTENT-BASED CLASSIFICATION
Ivana Cingovska, Skopje, Macedonia; Zoran Ivanovski, Ss. Cyril and Methodius University, Macedonia; François Martin, NXP Software B. V. Eindhoven, France

10:15

WA.PF.14 BLACKBOARD CONTENT CLASSIFICATION FOR LECTURE VIDEOS
Ali Shariq Imran, Gjøvik University College, Norway; Faouzi Alaya Cheikh, Gjovik University College, Norway

10:15

WA.PF.15 REAL-TIME AFFINE INVARIANT PATCH MATCHING USING DCT DESCRIPTOR AND AFFINE SPACE QUANTIZATION
Xiaobo Chen, Ye Feng, Men Aidong, Beijing University of Posts and Telecommunication, P.R. China

WA.PG Wednesday, September 14, 10:15-12:50

Image Processing Methods for Face Recognition (Poster)
Room: Grand Hall 2
Chair: Jean-Luc Dugelay, Institut EURECOM, France

10:15

WA.PG.1 LOCAL COLOR VECTOR BINARY PATTERN FOR FACE RECOGNITION
Seung-Ho Lee, JaeYoung Choi, Korea Advanced Institute of Science and Technology (KAIST), Korea; Konstantinos N Plataniotis, University of Toronto, Canada; Yong Man Ro, KAIST, Korea

10:15

WA.PG.2 FACIAL EXPRESSION RECOGNITION USING CLUSTERING DISCRIMINANT NON-NEGATIVE MATRIX FACTORIZATION
Symeon Nikitidis, Anastasios Tefas, Nikos Nikolaidis, Ioannis Pitas, Aristotle University of Thessaloniki, Greece

10:15

WA.PG.3 A NOVEL KERNEL DISCRIMINANT FEATURE EXTRACTION FRAMEWORK BASED ON MAPPED VIRTUAL SAMPLES FOR FACE RECOGNITION
Sheng Li, Xiaoyuan Jing, Nanjing University of Posts & Telecommunications, P.R. China; David Zhang, The Hong Kong Polytechnic University, Hong Kong; Yongfang Yao, Nanjing University of Posts and Telecommunications, P.R. China; Lusha Bian, Nanjing University of Posts & Telecommunications, P.R. China

10:15

WA.PG.4 KERNEL SPARSE REPRESENTATION WITH LOCAL PATTERNS FOR FACE RECOGNITION
Cuicui Kang, National Laboratory of Pattern Recognition, P.R. China; Shengcai Liao, Shiming Xiang, Chunhong Pan, Institute of Automation, Chinese Academy of Sciences, P.R. China

10:15

WA.PG.5 DISCRIMINANT SUBCLASS-CENTER MANIFOLD PRESERVING PROJECTION FOR FACE FEATURE EXTRACTION
Chao Lan, Xiaoyuan Jing, Nanjing University of Posts & Telecommunications, P.R. China; David Zhang, The Hong Kong Polytechnic University, Hong Kong; Shiqiang Gao, Nanjing University of Posts and Telecommunications, P.R. China; Jingyu Yang, Nanjing University of Science and Technology, P.R. China

10:15

WA.PG.6 TEXTURE CLASSIFICATION BASED LOW ORDER LOCAL BINARY PATTERN FOR FACE RECOGNITION
Ching-Te Chiu, National Tsing Hua University, Taiwan; Cyuan Jhe Wu, National Tsing Hua University, Taiwan

10:15

WA.PG.7 MANIFOLD LEARNING FOR SIMULTANEOUS POSE AND FACIAL EXPRESSION RECOGNITION
Raymond Ptucha, Grigorios Tsagkatakis, Andreas Savakis, Rochester Institute of Technology, USA

10:15

WA.PG.8 MULTI-VIEW FACE RECOGNITION VIA JOINT DYNAMIC SPARSE REPRESENTATION
Haichao Zhang, Northwestern Polytechnical University, USA; Nasser Nasrabadi, US Army Research Laboratory, USA; Thomas S Huang, University of Illinois at Urbana-Champaign, USA; Yanning Zhang, Northwestern Polytechnical University, P.R. China

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10 10:15

WA.PG.9 LOCAL PRIMITIVE CODE MINING FOR FAST AND ACCURATE FACE RECOGNITION
Li Jiangwei, Lei Xu, Kongqiao Wang, Ma Yong, Xiong Tao, Nokia Research Center, P.R. China

10:15

WA.PG.10 ROBUST LOW-RANK SUBSPACE RECOVERY AND FACE IMAGE DENOISING FOR FACE RECOGNITION
Mingyang Jiang, Jufu Feng, Peking University, P.R. China

10:15

WA.PG.11 A MIXTURE OF GATED EXPERTS OPTIMIZED USING SIMULATED ANNEALING FOR 3D FACE RECOGNITION
Wael Ben Soltana, LIRIS ECL, France; Di Huang, Ecole Centrale Lyon, France; Mohsen Ardabilian, Ecole Centrale Lyon, France; Liming Chen, EC Lyon, France; Chokri Ben Amar, University of Sfax, National School of Engineers, Tunisia

10:15

WA.PG.12 SEMI-SUPERVISED FACE RECOGNITION WITH LDA SELF-TRAINING
Xuran Zhao, Nicholas Evans, EURECOM, France; Jean-Luc Dugelay, Institut EURECOM, France

10:15

WA.PG.13 ROBUST FACIAL EXPRESSION TRACKING BASED ON COMPOSITE CONSTRAINTS AAM
Xuetao Feng, Xiaolu Shen, Mingcai Zhou, Hui Zhang, Samsung Advanced Institute of Technology, P.R. China; Jungbae Kim, Samsung Advanced Institute of Technology, Korea

10:15

WA.PG.14 FACE RECOGNITION BASED ON LOCAL UNCORRELATED AND WEIGHTED GLOBAL UNCORRELATED DISCRIMINANT TRANSFORMS
Xiaoyuan Jing, Sheng Li, Nanjing University of Posts and Telecommunications, P.R. China; David Zhang, The Hong Kong Polytechnic University, Hong Kong; Jingyu Yang, Nanjing University of Science and Technology, P.R. China

10:15

WA.PG.15 EXPRESSION ROBUST 3D FACE RECOGNITION VIA MESH-BASED HISTOGRAMS OF MULTIPLE ORDER SURFACE DIFFERENTIAL QUANTITIES
Huibin LI, Di Huang, Pierre Lemaire, Ecole Centrale de Lyon, France; Jean-Marie Morvan, Universite Claude Bernard, France; Liming Chen, EC Lyon, France

WP.L1 Wednesday, September 14, 14:20-17:35

Analysis of Microscopy and Reconstructive Images for Applications in Medicine and Biology (Special Session)
Room: Silver Hall
Co-Chairs: Bogdan Matuszewski, University of Central Lancashire, United Kingdom
Christopher Moore, The Christie NHS Foundation Trust, United Kingdom

14:20

WP.L1.1 3D MICROSCOPIC IMAGING BY SYNCHROTRON RADIATION MICRO/NANO-CT
Francoise Peyrin, Universite de Lyon; INSA Lyon, France; Alexandra Pacureanu, Université de Lyon, France; Max Langer, Université de Lyon, France

14:40

WP.L1.2 THE FORMULATION OF A NON-LINEAR HERTZIAN MODEL IN ORDER TO ASSESS THE MECHANICAL STRENGTH OF HUMAN CELLS BASED ON DATA FROM AN ATOMIC FORCE MICROSCOPE
David Burton, Mark Murphy, Francis Lilley, Munther A Gdeisat, Liverpool John Moores University, United Kingdom

15:00

WP.L1.3 A NOVEL TECHNIQUE FOR THE RESTORATION OF ATOMIC FORCE MICROSCOPE IMAGES ENABLING AN APPROXIMATION OF AFM IMPULSE RESPONSE
Ahmed Ahtaiba, Munther A Gdeisat, David Burton, Francis Lilley, Mark Murphy, Gary Johnston, Liverpool John Moores University, United Kingdom

15:20

WP.L1.4 ANALYSIS OF MICROSCOPY AND RECONSTRUCTIVE IMAGES FOR APPLICATIONS IN MEDICINE AND BIOLOGY
Gary Johnston, David Burton, Francis Lilley, Annette Doyle, Mark Murphy, Greg Madden, Munther A Gdeisat, Liverpool John Moores University, United Kingdom; Christopher Moore, Tom Marchant, The Christie NHS Foundation Trust, United Kingdom; Bogdan Matuszewski, University of Central Lancashire, United Kingdom

16:15

WP.L1.5 NUMERICAL EVALUATION OF SAMPLING BOUNDS FOR NEAR-OPTIMAL RECONSTRUCTION IN COMPRESSED SENSING
Yoann Le Montagner, Marcio Marim, Institut Pasteur, France; Elsa Angelini, Télécom ParisTech, France; Jean-Christophe Olivo-Marin, Institut Pasteur, France

16:35

WP.L1.6 CONFOCAL MICROSCOPY SEGMENTATION USING ACTIVE CONTOUR BASED ON ALPHA-DIVERGENCE
Leila Meziou, Aymeric Histace, ETIS UMR CNRS 8051, France; Frederic Precioso, LIP6 CNRS UMR 7606, France; Bogdan Matuszewski, University of Central Lancashire, United Kingdom; Mark Murphy, Liverpool John Moore University, United Kingdom

16:55

WP.L1.7 SEGMENTATION OF CELLULAR STRUCTURES IN ACTIN TAGGED FLUORESCENCE CONFOCAL MICROSCOPY IMAGES
Bogdan Matuszewski, University of Central Lancashire, United Kingdom; Mark Murphy, Liverpool John Moore University, United Kingdom; David Burton, Liverpool John Moores University, United Kingdom; Tom Marchant, Christopher Moore, The Christie NHS Foundation Trust, United Kingdom; Aymeric Histace, ETIS UMR CNRS 8051, France; Frederic Precioso, LIP6 CNRS UMR 7606, France

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17:15

WP.L1.8 **QUANTIFYING STRUCTURE REGULARITY IN FLUORESCENCE MICROSCOPY CELL IMAGES USING A NOVEL MULTI-DIMENSIONAL APPROXIMATE ENTROPY METRIC**

Tom Marchant, The Christie NHS Foundation Trust, United Kingdom; Mark Murphy, Greg Madden, Liverpool John Moores University, United Kingdom; Christopher Moore, The Christie NHS Foundation Trust, United Kingdom

WP.L2 Wednesday, September 14, 14:20-17:35

Image Quality Assessment (Lecture)

Room: 211/212

Chair: Touradj Ebrahimi, EPFL, Switzerland

14:20

WP.L2.1 **NO-REFERENCE IMAGE QUALITY ASSESSMENT BASED ON VISUAL CODEBOOK**

Peng Ye, University of Maryland, College Park, USA; David Doermann, University of Maryland Institute for Advanced Computer Studies, USA

14:40

WP.L2.2 **DCT STATISTICS MODEL-BASED BLIND IMAGE QUALITY ASSESSMENT**

Michele Saad, Alan C Bovik, University of Texas at Austin, USA; Christophe Charrier, Universite de Caen Basse-Normandie, France

15:00

WP.L2.3 **CROWDSOURCING SUBJECTIVE IMAGE QUALITY EVALUATION**

Flavio Ribeiro, University of São Paulo, Brazil; Dinei Florencio, Microsoft Research, USA; Vitor H Nascimento, USP, Brazil

15:20

WP.L2.4 **SYSTEMATIC STRESS TESTING OF IMAGE QUALITY ESTIMATORS**

Frank Ciaramello, Cornell University, USA; Amy Reibman, AT&T Labs - Research, USA; Name, Affiliation, Country

16:15

WP.L2.5 **OBJECTIVE METRICS FOR QUALITY OF EXPERIENCE IN STEREOSCOPIC IMAGES**

Liyuan Xing, Q2S-NTNU, Norway; Junyong You, Norwegian University of Science and Technology, Norway; Touradj Ebrahimi, EPFL, Switzerland; Andrew Perkis, NTNU, Norway

16:35

WP.L2.6 **ASSESSING THE QUALITY OF COMPRESSED IMAGES USING EEG**

Lea Lindemann, Technische Universität Braunschweig, Germany; Marcus Magnor, TU Braunschweig, Germany

16:55

WP.L2.7 **IMAGE QUALITY ASSESSMENT OF ENDOSCOPIC PANORAMA IMAGES**

Alexander Behrens, Michael Bommes, Sebastian Gross, Til Aach, RWTH Aachen University, Germany

17:15

WP.L2.8 **COMPREHENSIVE ASSESSMENT OF IRIS IMAGE QUALITY**

Xingguang Li, University of Science and Technology of China, P.R. China; Zhenan Sun, Achinese Academy of Sciences, P.R. China; Tieniu Tan, NLPR, P.R. China

WP.L3 Wednesday, September 14, 14:20-17:35

Video and Multichannel Segmentation (Lecture)
Room: 214/216
Chair: Scott Acton, University of Virginia, USA

14:20
WP.L3.1 TOWARDS REAL-TIME 3D REGION-BASED SEGMENTATION: B-SPLINE EXPLICIT ACTIVE SURFACES
Daniel Barbosa, Katholieke Universiteit Leuven, Portugal; Jan D'hooge, Cardiac Imageing Research, Belgium; Thomas Dietenbeck, CREATIS, France; Denis Friboulet, CREATIS, France; Olivier Bernard, Creatis, France

14:40
WP.L3.2 SEGMENTATION BY TEMPORAL DETECTION INTEGRATION
Yi-Ying Wang, Research Center for IT Innovation, Academia Sinica, Taiwan; Chia-han Lee, Academia Sinica, Taiwan

15:00
WP.L3.3 IMAGE LABELING BY MULTIPLE SEGMENTATION
Quan Zhou, Department of Electronics and Information Engineering, Huazhong University of Science and Technology, P.R. China; Canxiang Yan, Yingying Zhu, Xiang Bai, Wenyu Liu, Huazhong University of Science and Technology, P.R. China

15:20
WP.L3.4 THE RIVERBED APPROACH FOR USER-STEERED IMAGE SEGMENTATION
Paulo Miranda, University of Campinas, Brazil; Alexandre Falcão, Institute of Computing, University of Campinas, Brazil; Thiago Spina, University of Campinas, Brazil

16:15
WP.L3.5 CLOTHING SEGMENTATION AND RECOLORING USING BACKGROUND SUBTRACTION AND BACK PROJECTION METHOD
Susu Yao, Institute for Infocomm Research, Singapore; Ishtiaq Rasool Khan, A*STAR Institute for Infocomm Research, Singapore; Farzam Farbiz, A-Star Institute for Infocomm Research, Singapore

16:35
WP.L3.6 HARMONIC ACTIVE CONTOURS FOR MULTICHANNEL IMAGE SEGMENTATION
Virginia Estellers, Dominique Zosso, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland; Xavier Bresson, City University of Hong Kong, Hong Kong; Jean-Philippe Thiran, École Polytechnique Fédérale de Lausanne, Switzerland

16:55
WP.L3.7 AUTOMATIC FISH SEGMENTATION VIA DOUBLE LOCAL THRESHOLDING FOR TRAWL-BASED UNDERWATER CAMERA SYSTEMS
Meng-Che Chuang, Jenq-Neng Hwang, University of Washington, USA; Kresimir Williams, Richard Towler, National Oceanic and Atmospheric Administration, USA

17:15
WP.L3.8 AUTOMATIC PEOPLE SEGMENTATION WITH A TEMPLATE-DRIVEN GRAPH CUT
Cyrille Migniot, Pascal Bertolino, Jean-Marc Chassery, Grenoble Institute of Technology, France

WP.L4 Wednesday, September 14, 14:20-17:35

Color/Multispectral Imaging and Demosaicking (Lecture)
Room: 213/215
Chair: Theo Gevers, University of Amsterdam, The Netherlands

14:20
WP.L4.1 NEW COLOR FILTER ARRAYS OF HIGH LIGHT SENSITIVITY AND HIGH DEMOSAICKING PERFORMANCE
Jue Wang, Chao Zhang, Peking University, P.R. China; Pengwei Hao, Queen Mary, University of London, United Kingdom

14:40
WP.L4.2 MULTISPECTRAL DEMOSAICKING USING ADAPTIVE KERNEL UPSAMPLING
Yusuke Monno, Masayuki Tanaka, Masatoshi Okutomi, Tokyo Institute of Technology, Japan

15:00
WP.L4.3 DISREGARDING SPECTRAL OVERLAP - A UNIFIED APPROACH FOR DEMOSAICKING, COMPRESSIVE SENSING AND COLOR FILTER ARRAY DESIGN
Tripurari Singh, Mritunjay Singh, Image Algorithmics, USA

15:20
WP.L4.4 CORRELATION-BASED JOINT ACQUISITION AND DEMOSAICING OF VISIBLE AND NEAR-INFRARED IMAGES
Zahra Sadeghipoor, Yue M. Lu, Harvard University, USA; Sabine Süsstrunk, EPFL, Switzerland

16:15
WP.L4.5 INCREASING CAMERA DYNAMIC RANGE THROUGH IN-SENSOR MULTI-EXPOSURE WHITE BALANCING
Michael Schöberl, Wolfgang Schnurrer, University of Erlangen Nuremberg, Germany; Siegfried Foessel, Fraunhofer IIS, Germany; Andre Kaup, University of Erlangen-Nuremberg, Germany

16:35
WP.L4.6 MULTI-DIMENSIONAL EARTH MOVER'S DISTANCE ACTIVE CONTOURS
Carlos S. Mendoza, Germán Bohórquez-Ruiz, Begoña Acha, Carmen Serrano, University of Sevilla, Spain

16:55
WP.L4.7 GOOD LOOKING GREEN IMAGES
Hadi Hadizadeh, Ivan V. Bajic, Parvaneh Saeedi, Simon Fraser University, Canada; Scott Daly, Dolby Laboratories, USA

17:15
WP.L4.8 EDGE DETECTION IN MULTISPECTRAL IMAGES USING THE N-DIMENSIONAL SELF-ORGANIZING MAP
Johannes Jordan, Elli Angelopoulou, Friedrich-Alexander University Erlangen-Nuremberg, Germany

WP.I Wednesday, September 14, 14:00-15:00

Round table on Reproducible Research

Room: The Arc
Co-Chairs: Jean-Luc Dugelay, EURECOM Nice Sophia-Antipolis, France
Moncef Gabbouj, Tampere University of Technology, Finland

WP.L5 Wednesday, September 14, 15:00-17:55

Advances in Transforms for Video Coding (Special Session)

Room: The Arc
Co-Chairs: Robert Cohen, Mitsubishi Electric Research Laboratories, USA
Marta Mrak, BBC, United Kingdom

15:00
WP.L5.1 ONE-DIMENSIONAL DIRECTIONAL UNIFIED TRANSFORM FOR INTRA CODING
Jun Yamaguchi, Toshiba, Japan; Taichiro Shiodera, Saori Asaka, Akiyuki Tanizawa, Tomoo Yamakage, Toshiba Corporation, Japan

15:20
WP.L5.2 LOW-COMPLEXITY MODE-DEPENDENT KLT FOR BLOCK-BASED INTRA CODING
Chuohao Yeo, Yih Han Tan, Zhengguo Li, Institute for Inforcomm Research, Singapore

16:15
WP.L5.3 ROTATIONAL TRANSFORM FOR IMAGE AND VIDEO COMPRESSION
Elena Alshina, Samsung Electronics, Korea; Alexander Alshin, Samsung Electronics Co., Ltd, Korea; Felix Fernandes, Samsung Electronics Co., Ltd, USA

16:35
WP.L5.4 TRANSFORM CODING IN THE HEVC TEST MODEL
Martin Winken, Philipp Helle, Fraunhofer HHI, Germany; Detlev Marpe, Fraunhofer Institute for Telecommunications - Heinrich Hertz Institute, Germany; Heiko Schwarz, Fraunhofer HHI, Germany; Thomas Wiegand, Fraunhofer Institute for Telecommunications - Heinrich-Hertz-Institute, Germany

16:55
WP.L5.5 DESIGN OF NON-SEPARABLE TRANSFORMS FOR DIRECTIONAL 2-D SOURCES
Bing Zeng, Hong Kong University of Science and Technology, Hong Kong

17:15
WP.L5.6 DISTORTION ESTIMATES FOR ADAPTIVE TEMPORAL DECOMPOSITIONS OF VIDEO UNDER DISPLACEMENT ERRORS AND QUANTIZATION NOISE
Fabio Verdicchio, Yiannis Andreopoulos, University College London, United Kingdom

17:35
WP.L5.7 INTER PREDICTION USING LAPPED TRANSFORMS FOR ADVANCED VIDEO CODING
Rafael Galvão de Oliveira, Télécom PArisTech, France; Beatrice Pesquet, Telecom Paristech, France; Maria Trocan, I. S. E. P., France

WP.L6 Wednesday, September 14, 14:20-17:35

Hand and Iris-based Biometrics (Lecture)
Room: Hall 300
Chair: Patrizio Campisi, University of ROMA TRE, Italy

14:20
WP.L6.1 **CONTACT-FREE HAND GEOMETRY IDENTIFICATION SYSTEM**
Jing-Ming Guo, Yun-Fu Liu, National Taiwan University of Science and Technology, Taiwan

14:40
WP.L6.2 **DEFORMABLE DAISY MATCHER FOR ROBUST IRIS RECOGNITION**
Man Zhang, Chinese Academy of Sciences, Institute of Automation, P.R. China; Zhenan Sun, Achinese Academy of Sciences, P.R. China; Tieniu Tan, NLPR, P.R. China

15:00
WP.L6.3 **INCORPORATING COLOR INFORMATION FOR RELIABLE PALM-PRINT AUTHENTICATION**
Aythami Morales, Universidad de Las Palmas de Gran Canaria, Spain; Ajay Kumar, The Hong Kong Polytechnic University, Hong Kong; Miguel A. Ferrer, Las Palmas de Gran Canaria University, Spain

15:20
WP.L6.4 **FEATURE-DOMAIN SUPER-RESOLUTION FOR IRIS RECOGNITION**
Kien Nguyen, Clinton Fookes, Sridha Sridharan, Simon Denman, Queensland University of Technology, Australia

16:15
WP.L6.5 **A NOVEL FINGERPRINT MATCHING ALGORITHM USING MINUTIAE PHASE DIFFERENCE FEATURE**
Chongjin Liu, Jia Cao, Xin Gao, Xiang Fu, Jufu Feng, Peking University, Beijing, P.R. China

16:35
WP.L6.6 **FAST AND ACCURATE IRIS SEGMENTATION BASED ON LINEAR BASIS FUNCTION AND RANSAC**
Kai Wang, Yuntao Qian, Zhejiang University, P.R. China

16:55
WP.L6.7 **FRONT VIEW GAIT RECOGNITION USING SPHERICAL SPACE MODEL WITH HUMAN POINT CLOUDS**
JeGoon Ryu, Waseda University, Japan

17:15
WP.L6.8 **SECURITY ANALYSIS OF A CANCELABLE IRIS RECOGNITION SYSTEM BASED ON BLOCK REMAPPING**
Stefan Jenisch, University of Salzburg, Austria; Andreas Uhl, Salzburg University, Austria

WP.L7 Wednesday, September 14, 14:20-17:35

Video Streaming and Error-Resilient Coding (Lecture)
Room: 311/312
Chair: Kenneth Rose, University of California, Santa Barbara, USA

14:20
WP.L7.1 **FAST MODE DECISION FOR H.264 VIDEO CODING IN PACKET LOSS ENVIRONMENT**
Yuan Zhang, Communication University of China, USA; Pamela Cosman, University of California, San Diego, USA

14:40
WP.L7.2 **A UNIFIED FRAMEWORK FOR SPECTRAL DOMAIN PREDICTION AND END-TO-END DISTORTION ESTIMATION IN SCALABLE VIDEO CODING**
Jingning Han, University of California Santa Barbara, USA; Vinay Melkote, Dolby Laboratories Inc., USA; Kenneth Rose, University of California, Santa Barbara, USA

15:00
WP.L7.3 **FACE RECOVERY IN CONFERENCE VIDEO STREAMING USING ROBUST PRINCIPAL COMPONENT ANALYSIS**
Wai-tian Tan, Hewlett-Packard, USA; Gene Cheung, National Institute of Informatics, Japan; Yi Ma, University of Illinois at Urbana-Champaign, USA

15:20
WP.L7.4 **ENHANCED ERROR RESILIENCY FOR VIDEO WITH CYCLIC INTRA-REFRESH LINES**
Sandro Moiron, Instituto de Telecomunicações, Portugal; Mohammad Ghanbari, University of Essex, United Kingdom

16:15
WP.L7.5 **PRIORITIZED PACKET FRAGMENTATION FOR H.264 VIDEO**
Kashyap Kambhatla, University of California San Diego and San Diego State University, USA; Sunil Kumar, San Diego State University, USA; Pamela Cosman, University of California, San Diego, USA

16:35
WP.L7.6 **RATE-DISTORTION-OPTIMIZED CONTENT-ADAPTIVE CODING FOR IMMERSIVE NETWORKED EXPERIENCE OF SPORTS EVENTS**
Haopeng Li, Markus Flierl, KTH Royal Institute of Technology, Sweden

16:55
WP.L7.7 **A ROBUST CONTENT-BASED JPWL TRANSMISSION OVER A REALISTIC MIMO CHANNEL UNDER PERCEPTUAL CONSTRAINTS**
Julien Abot, University of Poitiers, France; Michael Nauge, XLIM-SIC CNRS, France; Clency Perrine, Université de Poitiers, France; Chaker Larabi, Université de Poitiers, France; Cyril Bergeron, Thalès Communictaions, France; Yannis Pousset, XLIM-SIC CNRS, France; Christian Olivier, XLIM-SIC CNRS, France

17:15
WP.L7.8 **CROSS-LAYER DESIGN FOR VIDEO STREAMING WITH DYNAMIC ANTENNA SELECTION**
Ching-Hui Chen, Academia Sinica, Taiwan; Wei-Ho Chung, Academia Sinica, Taiwan; Yu-Chiang Frank Wang, Academia Sinica, Taiwan

WP.L8 Wednesday, September 14, 14:20-17:35

Human Behavior Analysis and Foreground/Background Separation (Lecture)
Room: 314/316
Chair: Anastasios D. Doulamis, National Technical University of Athens, Greece

14:20
WP.L8.1 A DATASET FOR WORKFLOW RECOGNITION IN INDUSTRIAL SCENES
Athanasios Voulodimos, National Technical University of Athens, Greece; Dimitris Kosmopoulos, NCSR Demokritos, Greece; Georgios Vasileiou, NCSR Demokritos, Greece; Emmanuel S. Sardis, Anastasios D. Doulamis, Vassilios Anagnostopoulos, Constantinos G Lalos, Theodora Varvarigou, National Technical University of Athens, Greece

14:40
WP.L8.2 ACTIVE LEARNING FOR HUMAN ACTION RECOGNITION WITH GAUSSIAN PROCESSES
Xianghang Liu, University of New South Wales, Australia; Jian Zhang, The University of New South Wales, Australia

15:00
WP.L8.3 SYSTEM FOR THE AUTOMATED SEGMENTATION OF HEADS FROM ARBITRARY BACKGROUND
Benjamin Prestele, David Schneider, Peter Eisert, Fraunhofer HHI, Germany

15:20
WP.L8.4 ROBUST DENSITY MODELLING USING THE STUDENT'S T-DISTRIBUTION FOR HUMAN ACTION RECOGNITION
Zia Moghaddam, University of Technology, Sydney, Australia; Massimo Piccardi, University of Technology, Sydney, Australia

16:15
WP.L8.5 INCORPORATING ESTIMATED MOTION IN REAL-TIME BACK-GROUND SUBTRACTION
Minglun Gong, Memorial University of Newfoundland, Canada; Li Cheng, NICTA and Australian National University, Australia

16:35
WP.L8.6 FOREGROUND ESTIMATION BASED ON ROBUST LINEAR REGRESSION MODEL
Gengjian Xue, Li Song, Jun Sun, Meng Wu, Shanghai Jiao Tong University, P.R. China

16:55
WP.L8.7 SELECTIVE SUBTRACTION WHEN THE SCENE CANNOT BE LEARNED
Adeel Bhutta, University of Central Florida, USA; Imran Junejo, University of Sharjah, UAE; Hassan Foroosh, University of Central Florida, USA

17:15
WP.L8.8 SELECTIVE EIGENBACKGROUNDS METHOD FOR BACK-GROUND SUBTRACTION IN CROWED SCENES
Zhipeng Hu, Institute of Computing Technology, Chinese Academy of Sciences, P.R. China; Yaowei Wang, Beijing Institute of Technology, P.R. China; Yonghong Tian, National Engineering Lab for Video Technology, Peking University, P.R. China; Tiejun Huang, Peking University, P.R. China

WP.PA Wednesday, September 14, 14:20-17:35

Multimedia Quality Assessment and Modeling of Visual Perception (Poster)
Room: Grand Hall 2
Chair: Matteo Naccari, Instituto de Telecomunicações, Portugal

14:20
WP.PA.1 IMAGE COMPLEXITY MEASURE BASED ON VISUAL ATTENTION
Matthieu Perreira Da Silva, University of La Rochelle, France; Vincent Courboulay, University of La Rochelle, France; Pascal Estraillier, University of La Rochelle, France

14:20
WP.PA.2 ROBUSTNESS AND REPEATABILITY OF SALIENCY MODELS SUBJECTED TO VISUAL DEGRADATIONS
Olivier Le Meur, University of Rennes 1, France

14:20
WP.PA.3 VISUAL ATTENTION: EFFECTS OF BLUR
Rizwan Ahmed Khan, LIRIS, Université Claude Bernard Lyon 1, France; Eric Dinet, Laboratoire Hubert Curien, France; Hubert Konik, Laboratoire Hubert Curien, France

14:20
WP.PA.4 TRACKING FAILURE DETECTION BY IMITATING HUMAN VISUAL PERCEPTION
Hyung Jin Chang, Myoung Soo Park, Hawook Jeong, Jin Young Choi, Seoul National University, Korea

14:20
WP.PA.5 VISUAL ATTENTION BASED IMAGE QUALITY ASSESSMENT
Anan Guo, Debin Zhao, Shaohui Liu, Harbin Institute of Technology, P.R. China; Xiaopeng Fan, Hong Kong University of Science and Technology, P.R. China; Wen Gao, ICT-ISVISION Joint R&D Laboratory for Face Recognition, CAS, P.R. China

14:20
WP.PA.6 FUSION OF VISUAL ATTENTION CUES BY MACHINE LEARNING
Wen-Fu Lee, Tai-Hsiang Huang, Su-Ling Yeh, Homer Chen, National Taiwan University, Taiwan

14:20
WP.PA.7 EDGE-BASED OBJECTIVE EVALUATION OF IMAGE QUALITY
Boban Bondzulic, Military Academy, Serbia; Vladimir Petrovic, University of Manchester, United Kingdom

14:20
WP.PA.8 AN IMAGE QUALITY ASSESSMENT METRIC BASED ON NON-SHIFT EDGE
Wufeng Xue, Institute of Image Processing & Pattern Recognition, Xian Jiaotong University, P.R. China; Xuanqin Mou, Xi'an Jiaotong University, P.R. China

14:20
WP.PA.9 RRAR: A NOVEL REDUCED-REFERENCE IQA ALGORITHM FOR FACIAL IMAGES
Jiazhen Zhu, Yuchun Fang, Pengjun Ji, Moad Abdl, Wang Dai, Shanghai University, P.R. China

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14:20
WP.PA.10 CALIBRATING MS-SSIM FOR COMPRESSION DISTORTIONS USING MLDS
Christophe Charrier, Universite de Caen Basse-Normandie, France; Kenneth Knoblauch, INSERM U846, France; Laurence Maloney, Univerity of New-York, USA; Alan C Bovik, University of Texas at Austin, USA

14:20
WP.PA.11 MODELING OF RATE AND PERCEPTUAL QUALITY OF VIDEO AND ITS APPLICATION TO FRAME RATE ADAPTIVE RATE CONTROL
Zhan Ma, Samsung Telecommunications America, USA; Meng Xu, Polytechnic Institute of New York University, USA; Kyeong Yang, Dialogic Inc, USA; Yao Wang, Polytechnic Institute of NYU, USA

14:20
WP.PA.12 NO-REFERENCE VIDEO QUALITY METRIC FOR HDTV BASED ON H.264/AVC BITSTREAM FEATURES
Christian Keimel, Manuel Klimpke, Julian Habigt, Klaus Diepold, Technische Universität München, Germany

14:20
WP.PA.13 NO-REFERENCE CROSS-LAYER VIDEO QUALITY ESTIMATION MODEL OVER WIRELESS NETWORKS
Yang Yan, BUPT, P.R. China

14:20
WP.PA.14 NO REFERENCE METRIC OF VIDEO CODING QUALITY BASED ON PARAMETRIC ANALYSIS OF VIDEO BITSTREAM
Osamu Sugimoto, KDDI R&D Laboratories Inc., Japan

14:20
WP.PA.15 AUDIOVISUAL QUALITY FUSION BASED ON RELATIVE MULTI-MODAL COMPLEXITY
Junyong You, Norwegian University of Science and Technology, Norway; Jari Korhonen, Technical University of Denmark, Denmark; Ulrich Reiter, Norwegian University of Science and Technology (NTNU), Norway

WP.PB Wednesday, September 14, 14:20-17:35

Partial Differential Equations (Poster)
Room: Grand Hall 2
Chair: Ayman Sabry El-Baz, University of Louisville, USA

14:20
WP.PB.1 AN IMPROVED REGION-BASED MODEL WITH LOCAL STATISTICAL FEATURE
Qi Ge, Zhi Wei, Nanjing University of Science and Technology, P.R. China

14:20
WP.PB.2 ACTIVE CONTOURS WITH A NOVEL DISTRIBUTION METRIC FOR COMPLEX OBJECT SEGMENTATION
Shu-juan Peng, Huaqiao University, P.R. China; Xin Liu, Hong Kong Baptist University, P.R. China; Yiu-ming Cheung, Hong Kong Baptist University, Hong Kong

14:20
WP.PB.3 TEXTURE SEGMENTATION BASED ON LOCAL FEATURE HISTOGRAMS
Liyan Ma, Beijing Jiaotong University, P.R. China

14:20
WP.PB.4 SNAKE BASED UNSUPERVISED TEXTURE SEGMENTATION USING GAUSSIAN MARKOV RANDOM FIELD MODELS
Sasan Mahmoodi, University of Southampton, United Kingdom; Steve Gunn, Affiliation, United Kingdom

14:20
WP.PB.5 EFFECTIVE IMAGE NOISE REMOVAL BASED ON DIFFERENCE EIGENVALUE
Haiying Tian, Hongmin Cai, The Sun Yat-Sen University, P.R. China; Jianhuang Lai, Sun Yat-Sen University, P.R. China; X. Xu, Harvard Medical School, USA

14:20
WP.PB.6 LEVEL SET EVOLUTION WITH LOCALLY LINEAR CLASSIFICATION FOR IMAGE SEGMENTATION
Wang Ying, NLPR, Institute of Automation, Chinese Academy of Sciences, P.R. China; Lingfeng Wang, National Laboratory of Pattern Recognition, P.R. China; Shiming Xiang, Chunhong Pan, Institute of Automation, Chinese Academy of Sciences, P.R. China

14:20
WP.PB.7 COST AGGREGATION WITH ANISOTROPIC DIFFUSION IN FEATURE SPACE FOR HYBRID STEREO MATCHING
Bumsub Ham, Yonsei University, Korea; Dongbo Min, Advanced Digital Sciences Center, Singapore; Kwang Hoon Sohn, Yonsei University, Korea

14:20
WP.PB.8 NEW OPTIMIZATION SCHEME FOR L2-NORM TOTAL VARIATION SEMI-SUPERVISED IMAGE SOFT LABELING
Chia-Liang Tsai, National Taiwan University, Taiwan; Shao-Yi Chien, National Taiwan University, Taiwan

14:20
WP.PB.9 NON-LOCAL SEGMENTATION AND INPAINTING
Miyoun Jung, Ceremade, Universite Paris-Dauphine, France; Gabriel Peyré, CNRS and Université Paris-Dauphine, France; Laurent Cohen, CNRS and Université Paris-Dauphine, France

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14:20
WP.PB.10 PDES LEVEL SETS ON WEIGHTED GRAPHS
Xavier Desquesnes, Abderrahim Elmoataz, Olivier Lezoray, Université de Caen Basse-Normandie, France

14:20
WP.PB.11 AFFINE MORPHOLOGICAL SHAPE STABLE BOUNDARY REGIONS (SSBR) FOR IMAGE REPRESENTATION
Petros Kapsalas, National Technical University of Athens, Greece; Stefanos Kollias, NTUA, Greece

14:20
WP.PB.12 DISCONTINUOUS SEISMIC HORIZON TRACKING BASED ON A POISSON EQUATION WITH INCREMENTAL DIRICHLET BOUNDARY CONDITIONS
Guillaume Zinck, University of Bordeaux, France; Marc Donias, IMS Laboratory - University Bordeaux, France; Sébastien Guillon, TOTAL, France; Olivier Lavialle, Bordeaux 1 University – UMR IMS, France

14:20
WP.PB.13 REDUCING ALIASING IN IMAGES: A SIMPLE DIFFUSION EQUATION BASED ON THE INVERSE DIFFUSIVITY
Djemel Ziou, Alain Horé, Université de Sherbrooke, Canada

14:20
WP.PB.14 A NEW DEFORMABLE MODEL-BASED SEGMENTATION APPROACH FOR ACCURATE EXTRACTION OF THE KIDNEY FROM ABDOMINAL CT IMAGES
Fahmi Khalifa, Bioimaging Laboratory, USA; Georgy Gimel'farb, University of Auckland, USA; Mohamed Abo El-Ghar, University of Mansoura, Egypt; Gulea Sokhadze, University of Louisville, USA; Rosemary Ouseph, University of Louisville, USA; Ayman Sabry El-Baz, University of Louisville, USA

14:20
WP.PB.15 LEVEL SET SEGMENTATION WITH ROBUST IMAGE GRADIENT ENERGY AND STATISTICAL SHAPE PRIOR
Si Yong Yeo, School of Engineering, Swansea University, United Kingdom; Xianghua Xie, Swansea University, United Kingdom; Igor Sazonov, Swansea, United Kingdom; Perumal Nithiarasu, Swansea University, United Kingdom

WP.PC Wednesday, September 14, 14:20-17:35

Image Restoration and Enhancement (Poster)
Room: Grand Hall 2
Chair: Christine Guillemot, INRIA, France

14:20
WP.PC.1 EXAMPLAR-BASED INPAINTING BASED ON LOCAL GEOMETRY
Olivier Le Meur, University of Rennes 1, France; Josselin Gautier, University of Rennes 1, France; Christine Guillemot, INRIA, France

14:20
WP.PC.2 WIDE-BAND IMAGE GUIDED VISIBLE-BAND IMAGE ENHANCEMENT
Youngjin Yoo, SAMSUNG Advanced Institute of Technology, Korea; Wonhee Choe, Seong-Deok Lee, Samsung Electronics, Samsung Advanced Institute of Technology, Korea

14:20
WP.PC.3 IMAGE INPAINTING VIA WEIGHTED SPARSE NON-NEGATIVE MATRIX FACTORIZATION
Yu-Xiong Wang, Yu-Jin Zhang, Tsinghua University, P.R. China

14:20
WP.PC.4 FRAGMENTED APERTURE IMAGING FOR MOTION AND DEFOCUS DEBLURRING
Manuel Martinello, Heriot-Watt University, United Kingdom; Paulo Favaro, Affiliation, United

14:20
WP.PC.5 IMAGE ENHANCEMENT BASED ON RETINEX AND LIGHTNESS DECOMPOSITION
Wang Shuhang, Beihang University, P.R. China

14:20
WP.PC.6 IMAGE CONTRAST ENHANCEMENT IN COMPRESSED WAVELET DOMAIN
Dongwook Cho, Tien D. Bui, Concordia University, Canada

14:20
WP.PC.7 COLOR HISTOGRAM DIFFUSION FOR IMAGE ENHANCEMENT
Taemin Kim, NASA Ames Research Center, USA

14:20
WP.PC.8 RECONSTRUCTION OF HIGH DYNAMIC RANGE IMAGES WITH POISSON NOISE MODELING AND INTEGRATED DENOISING
Bart Goossens, Hiep Quang Luong, Jan Aelterman, Aleksandra Pižurica, Wilfried Philips, Ghent University, Belgium

14:20
WP.PC.9 GRADIENT DOMAIN CONTRAST ENHANCEMENT WITH HISTOGRAM-GUIDED BOUNDARY CONDITIONS
Chulwoo Lee, Chul Lee, Chang-Su Kim, Korea University, Korea

14:20
WP.PC.10 NOISELESS NO-FLASH PHOTO CREATION BY COLOR TRANSFORM OF FLASH IMAGE
Keiichiro Shirai, Shinshu University, Japan

14:20
WP.PC.11 FAST IMAGE INPAINTING USING SIMILARITY OF SUBSPACE METHOD
Tomoki Hosoi, Koji Kobayashi, Yamatake Corpolation, Japan; Koichi Ito, Tohoku University, Japan; Takafumi Aoki, Tohoku University, Japan

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14:20
WP.PC.12 AUTOMATIC FOREGROUND-BACKGROUND REFOCUSING
Alexander Loktyushin, Max Planck Institute for Biological Cybernetics, Germany; Stefan Harmeling, MPI for Biological Cybernetics, Germany

14:20
WP.PC.13 DEPTH MAP SUPER RESOLUTION
Murat Gevrekci, ASELSAN, Turkey; Kubilay Pakin, Lead Design Engineer, Turkey

14:20
WP.PC.14 DECOUPLED INVERSE AND DENOISING FOR IMAGE DEBLURRING: VARIATIONAL BM3D-FRAME TECHNIQUE
Vladimir Katkovnik, Aram Danielyan, Karen Egiazarian, Tampere University of Technology, Finland

14:20
WP.PC.15 A NOVEL ITERATIVE IMAGE RESTORATION ALGORITHM USING NONSTATIONARY IMAGE PRIORS
Esteban Vera, University of Arizona, USA; MIguel Vega, University of Granada, Spain; Rafael Molina, Universidad de Granada, Spain; Aggelos K Katsaggelos, Northwestern University, USA

14:20
WP.PC.16 RECONSTRUCTING STATIC SCENE VIEWED THROUGH SMOKE USING VIDEO
Ákos Kiss, Computer and Automation Research Institut, Hungary; Tamas Szirányi, Computer and Automation Research Institute of the Hungarian Academy of Sciences, Hungary

WP.PD Wednesday, September 14, 14:20-17:35

Scalable and Adaptive Methods for Video Coding (Poster)
Room: Grand Hall 2
Chair: Sheila Hemami, Cornell University, USA

14:20
WP.PD.1 A NOVEL RATE-DISTORTION OPTIMIZATION METHOD OF H.264/AVC INTRA CODER
Mohammed Golam Sarwer, Ryerson University, Canada; Jonathan Wu, University of Windsor, Canada; Xiao-Ping Zhang, Ryerson University, Canada

14:20
WP.PD.2 INTRA-PREDICTION WITH ADAPTIVE SUB-SAMPLING
Yih Han Tan, Chuohao Yeo, Zhengguo Li, Institute for Inforcomm Research, Singapore; Susanto Rahardja, Institute for Infocomm Research, Singapore

14:20
WP.PD.3 THEORETICAL CONSIDERATION OF GLOBAL MOTION TEMPORAL FILTERING
Andreas Krutz, Alexander Glantz, Thomas Sikora, Technische Universität Berlin, Germany

14:20
WP.PD.4 ADAPTIVE LOOP FILTER TECHNOLOGY BASED ON ANALYTICAL DESIGN CONSIDERING LOCAL IMAGE CHARACTERISTICS
Tomonobu Yoshino, KDDI R&D Laboratories Inc., Japan

14:20
WP.PD.5 AN EFFICIENT KEY-FRAME-FREE PREDICTION METHOD FOR MGS OF H.264/SVC
Lili Zhao, Beihang University, P.R. China; You Zhou, Microsoft Research Asia, P.R. China; QinPing Zhao, Beihang University, P.R. China; Feng Wu, Microsoft Research Asia, P.R. China

14:20
WP.PD.6 ONE DIMENSIONAL PREDICTION AND TRANSFORM FOR INTRA CODING
Changcai Lai, Research Dept., Huawei HiSilicon TechnologiesHuawei HiSilicon Technologies, P.R. China

14:20
WP.PD.7 PARALLEL PROCESSING FOR COMBINED INTRA PREDICTION IN HIGH EFFICIENCY VIDEO CODING
Marta Mrak, Andrea Gabriellini, David Flynn, Thomas Davies, BBC, United Kingdom

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WP.PD.8 EXTENDING SVC BY CONTENT-ADAPTIVE SPATIAL SCALABILITY
Yongzhe Wang, Shanghai Jiao Tong University, P.R. China; Nikolce Stefanoski, Manuel Lang, Alexander Hornung, Aljoscha Smolic, Disney Research Zurich, Switzerland; Markus Gross, ETH Zurich, Switzerland

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WP.PD.9 RATE CONTROL INITIALIZATION ALGORITHM FOR SCALABLE VIDEO CODING
Sergio Sanz-Rodríguez, Fernando Díaz-de-María, Unversidad Carlos III de Madrid, Spain

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WP.PD.10 DIRECTIONAL ADAPTIVE LOOP FILTER FOR VIDEO CODING
Yunfei Zheng, Qualcomm, USA; Peng Yin, Dolby Laboratories, Inc., USA; Qian Xu, Intel Inc, USA; Joel Sole, Qualcomm, USA; Xiaoan Lu, Thomson, Inc., USA

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WP.PD.12 IMPROVED FOR/SOR BASED VIDEO CODING AND ITS PERFORMANCE ANALYSIS
Jewon Kang, Chung-Cheng Lou, Seung-hwan Kim, USA; C.-C. Jay Kuo, University of Southern California, USA

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WP.PD.13 VIDEO ENCODER BASED ON LIFTING TRANSFORMS ON GRAPHS
Eduardo Martínez-Enríquez, Fernando Díaz-de-María, Unversidad Carlos III de Madrid, Spain; Antonio Ortega, USC, USA

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WP.PD.14 A DENOISING APPROACH FOR ITERATIVE SIDE INFORMATION CREATION IN DISTRIBUTED VIDEO CODING
Joao Ascenso, ISEL - IT, Portugal; Catarina Brites, Fernando Pereira, IST-IT, Portugal

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WP.PD.15 PERIODIC ENTROPY CODER INITIALIZATION FOR WAVEFRONT DECODING OF VIDEO BITSTREAM
Kiran M. Misra, Sharp Laboratories of America Inc., USA; Jie Zhao, Sharp Labs of America, USA; Andrew Segall, Sharp Labs, USA

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WP.PD.16 MCFIS IN HIERARCHICAL BIPREDICTVE PICTURES-BASED VIDEO CODING FOR REFERENCING THE STABLE AREA IN A SCENE
Manoranjan Paul, Charles Sturt University, Australia; Weisi Lin, C. T. Lau, Bu Sung Lee, Nanyang Technological University, Singapore

WP.PE Wednesday, September 14, 14:20-17:35

Electronic Imagery: Detection, Classification and Restoration (Poster)
Room: Grand Hall 2
Chair: Anderson Rocha, State University of Campinas, Brazil

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WP.PE.1 IMAGE CATEGORIZATION THROUGH OPTIMUM PATH FOREST AND VISUAL WORDS
João Paulo Papa, UNESP - Univ Estadual Paulista, Brazil; Anderson Rocha, State University of Campinas, Brazil

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WP.PE.2 AUTOMATIC SEGMENTATION FOR ARABIC CHARACTERS IN HANDWRITING DOCUMENTS
Ahmed Lawgali, Ahmed Bouridane, Maia Angelova, Northumbria University, United Kingdom

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WP.PE.3 POINT OBJECT DETECTION USING A NL-MEANS TYPE FILTER
Laure Genin, Frédéric Champagnat, Guy Le Besnerais, ONERA, France; Laurent Coret, EADS-Astrium, France

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WP.PE.4 REMOVING THE ARTIFACTS FROM ARTWORK CROSS-SECTION IMAGES
Miroslav Beneš, Barbara Zitová, Jan Blažek, Institute of Information Theory and Automation, Czech Republic; Janka Hradilová, Academic Laboratory of Materials Research of Paintings, Czech Republic; David Hradil, Institute of Inorganic Chemistry, Czech Republic

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WP.PE.5 HIERARCHICAL HYBRID MLP/HMM OR RATHER MLP FEATURES FOR A DISCRIMINATIVELY TRAINED GAUSSIAN HMM: A COMPARISON FOR OFFLINE HANDWRITING RECOGNITION
Philippe Dreuw, Patrick Doetsch, Christian Plahl, RWTH Aachen University, Germany; Hermann Ney, RWTH Aachen, Germany

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WP.PE.6 COMPUTERIZED PALEOGRAPHY: TOOLS FOR HISTORICAL MANUSCRIPTS
Lior Wolf, Liza Potikha, Nahcum Dershowitz, Tel-Aviv University, Israel; Roni Shweka, Genazim, Israel; Yaacov Choueka, Gwenzaim, Israel

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WP.PE.7 EDGE NOISE REMOVAL IN BILEVEL GRAPHICAL DOCUMENT IMAGES USING SPARSE REPRESENTATION
Thai V. Hoang, LORIA, Université Nancy 2, France; Elisa Barney Smith, Boise State University, USA; Salvatore Tabbone, University Nancy 2, France

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WP.PE.8 FAST DETECTION OF SMALL INFRARED OBJECTS IN MARITIME SCENES USING LOCAL MINIMUM PATTERNS
Baojun Qi, Tao Wu, Bin Dai, Hangen He, National University of Defense Technology, P.R. China

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WP.PE.9 FACE LIVENESS DETECTION UNDER BAD ILLUMINATION CONDITIONS
Bruno Peixoto, Carolina Michelassi, University of Campinas (Unicamp), Brazil; Anderson Rocha, State University of Campinas, Brazil

WP.PF Wednesday, September 14, 14:20-17:35

Object Detection and Recognition (Poster)
Room: Grand Hall 2
Chair: Andre Kaup, University of Erlangen-Nuremberg, Germany

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WP.PF.1 BEYOND STRAIGHT LINES - OBJECT DETECTION USING CURVATURE
Antonio Monroy, Angela Eigenstetter, Björn Ommer, IWR - University of Heidelberg, Germany

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WP.PF.2 PARTIAL LEAST SQUARES BASED SUBWINDOW SEARCH FOR PEDESTRIAN DETECTION
Jinchen Wu, National Laboratory of Pattern Recognition, Institute of Automation, Chinese Academy of Sciences, P.R. China; Wei Chen, Institute of Automation, Chinese Academy of Sciences, P.R. China; Kaiqi Huang, Chinese Academy of Sciences, P.R. China; Tieniu Tan, NLPR, P.R. China

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WP.PF.4 BOOSTING BASED OBJECT DETECTION USING A GEOMETRIC MODEL
Katharina Quast, Friedrich-Alexander University Erlangen-Nuremberg, Germany; Christoph Seeger, University of Erlangen-Nuremberg, Germany; Mohan Trivedi, UCSD, USA; Andre Kaup, University of Erlangen-Nuremberg, Germany

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WP.PF.5 NONLINEAR L1-NORM MINIMIZATION LEARNING FOR HUMAN DETECTION
Ran Xu, Jianbin Jiao, Qixiang Ye, Graduate University of Chinese Academy of Sciences, P.R. China

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WP.PF.6 AUTOMATIC NESTING SEABIRD DETECTION BASED ON BOOSTED HOG-LBP DESCRIPTORS
Chunmei Qing, Patrick Dickinson, Shaun Lawson, University of Lincoln, United Kingdom; Robin Freeman, Microsoft Research, United Kingdom

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WP.PF.7 HOLLOW TV LOGO DETECTION
Liang Zhang, Tian Xia, Yong-Dong Zhang, Jintao Li, Institute of Computing Technology, Chinese Academy of Sciences, P.R. China

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WP.PF.8 POSE ESTIMATION BY LOCAL PROCRUSTES REGRESSION
Bisser Raytchev, Kazuya Terakado, Toru Tamaki, Kazufumi Kaneda, Hiroshima University, Japan

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WP.PF.9 FAST HUMAN DETECTION USING NODE-COMBINED PART DETECTOR
Song Cao, Genquan Duan, Haizhou Ai, Tsinghua University, P.R. China

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WP.PF.10 REAL-TIME DETECTION VIA HOMOGRAPHY MAPPING OF FOREGROUND POLYGONS FROM MULTIPLE CAMERAS
Ming Xu, Xi'an Jiaotong-Liverpool University, P.R. China

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WP.PF.11 ROBUST ABANDONED OBJECT DETECTION USING REGION-LEVEL ANALYSIS
Jiyan Pan, Carnegie Mellon University, USA; Quanfu Fan, IBM T. J. Watson Research, USA; Sharath Pankanti, IBM Research, USA

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WP.PF.12 CANONICAL CORRELATION ANALYSIS OF LOCAL FEATURE SET FOR VIEW-BASED OBJECT RECOGNITION
Xian-Hua Han, Ritsumeikan University, Japan; Yen-Wei Chen, Ritsumeikan University, Japan; Ruan, OMRON Corp., Japan

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WP.PF.13 HAND SHAPE RECOGNITION USING DISTANCE TRANSFORM AND SHAPE DECOMPOSITION
Junyeong Choi, Hanyang University, Korea; Hanhoon Park, NHK Science & Technology Research Laboratories, Japan; Jong-Il Park, Hanyang University, Korea

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WP.PF.14 HUMAN DETECTION WITH CONTOUR-BASED LOCAL MOTION BINARY PATTERNS
Thanh Duc Nguyen, Philip Ogunbona, Wanqing Li, University of Wollongong, Australia

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WP.PF.15 PICTORIAL STRUCTURES FOR OBJECT RECOGNITION AND PART LABELING IN DRAWINGS
Amir Sadovnik, Tsuhan Chen, Cornell University, USA

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WP.PF.16 ROBUST HEAD POSE ESTIMATION VIA CONVEX REGULARIZED SPARSE REGRESSION
Ji Hao, Carnegie Mellon University, USA; Risheng Liu, Dalian University of Technology, P.R. China; Fei Su, Beijing university of posts and telecommunications, P.R. China; Zhixun Su, Dalian University of Technology, P.R. China; Yan Tian, Hikvision Digital Technology Co. Ltd, P.R. China

WP.PG Wednesday, September 14, 14:20-17:35

Video Retrieval (Poster)
Room: Grand Hall 2
Chair: Moncef Gabbouj, Tampere University of Technology, Finland

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WP.PG.1 TOWARDS A BETTER UNDERSTANDING OF MODEL-FREE SEMANTIC CONCEPT DETECTION FOR ANNOTATION AND NEAR-DUPLICATE VIDEO CLIP DETECTION
Hyun-seok Min, JaeYoung Choi, Wesley Marcel De Neve, Korea Advanced Institute of Science and Technology (KAIST), Korea; Yong Man Ro, KAIST, Korea

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WP.PG.2 QUADTREE CLASSIFIED VECTOR QUANTIZATION BASED IMAGE RETRIEVAL SCHEME
Hsin-Hui Chen, National Taiwan University, Taiwan; Hsin-Teng Sheu, Tung-Nan University, Taiwan; Jian-Jiun Ding, National Taiwan University, Taiwan

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WP.PG.3 A MULTIMODAL VIDEO COPY DETECTION APPROACH WITH SEQUENTIAL PYRAMID MATCHING
Yonghong Tian, National Engineering Lab for Video Technology, Peking University, P.R. China; Menglin Jiang, Peking University, P.R. China; Luntian Mou, Chinese Academy of Sciences, P.R. China; Xiaoyu Fang, Tiejun Huang, Peking University, P.R. China

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WP.PG.4 RETRIEVING VIDEO SHOTS IN SEMANTIC BRAIN IMAGING SPACE USING MANIFOLD-RANKING
Xiang Ji, Junwei Han, Xintao Hu, Kaiming Li, Northwestern Polytechnical University, P.R. China; Fan Deng, University of Georgia, USA; Jun Fang, Guo Lei, Northwestern Polytechnical University, P.R. China; Tianming Liu, University of Georgia, USA

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Lionel Bombrun, Yannick Berthoumieu, Nour-Eddine Lasmar, IMS Laboratory - University Bordeaux, France; Geert Verdoolaege, Ghent University, Belgium

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WP.PG.6 ACTION SCENE DETECTION FROM MOTION AND EVENTS
Robert Sorschag, Markus Hörhan, Vienna University of Technology, Austria

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Serkan Kiranyaz, Jenni Pulkkinen, Tampere University of Technology, Finland; Turker Ince, Affiliation, Turkey; Moncef Gabbouj, Tampere University of Technology, Finland

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WP.PG.8 INTEGRATING DISTANCE METRIC LEARNING INTO LABEL PROPAGATION MODEL FOR MULTI-LABEL IMAGE ANNOTATION
Bin Wang, Yi Shen, Yuncai Liu, Shanghai Jiao tong University, P.R. China

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Min Xu, University of Technology Sydney, Australia; Jinqiao Wang, Institute of Automation (IA) Chinese Academy of Sciences (CAS), P.R. China; Muhammad Abul Hasan, Xiangjian He, University of Technology, Sydney, Australia; Changsheng Xu, Hanqing Lu, the Institute of Automation, Chinese Academy of Sciences, P.R. China; Jesse S Jin, University of Newcastle, Australia;

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WP.PG.10 VIEW-BASED 3D MODEL RETRIEVAL USING TWO-LEVEL SPATIAL STRUCTURE
Pengjie Li, Huadong Ma, An-Long Ming, Beijing University of Posts and Telecommunications, P.R. China

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WP.PG.11 A BAG-OF-REGIONS APPROACH TO SKETCH-BASED IMAGE RETRIEVAL
Rui Hu, Tinghuai Wang, John Philip Collomosse, University of Surrey, United Kingdom

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WP.PG.12 IMAGE CODING WITH FACE DESCRIPTORS EMBEDDING
Alberto Boschetti, Nicola Adami, Riccardo Leonardi, University of Brescia, Italy; Masahiro Okuda, The University of Kitakyushu, Japan

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Juan Banda, Rafal Angryk, Petrus C Martens, Montana State University, USA

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WP.PG.14 COMPARISON OF VIDEO SEQUENCES WITH HISTOGRAMS OF MOTION PATTERNS
Jurandy Almeida, University of Campinas, Brazil; Neucimar Leite, State University of Campinas, Brazil; Ricardo Torres, Institute of Computing, State University of Campinas, Brazil

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WP.PG.15 LOCATION-BASED IMAGE RETRIEVAL FOR URBAN ENVIRONMENTS
Jerry Zhang, Aaron Hallquist, University of California, Berkeley, USA; Avideh Zakhor, University of California at Berkeley, USA

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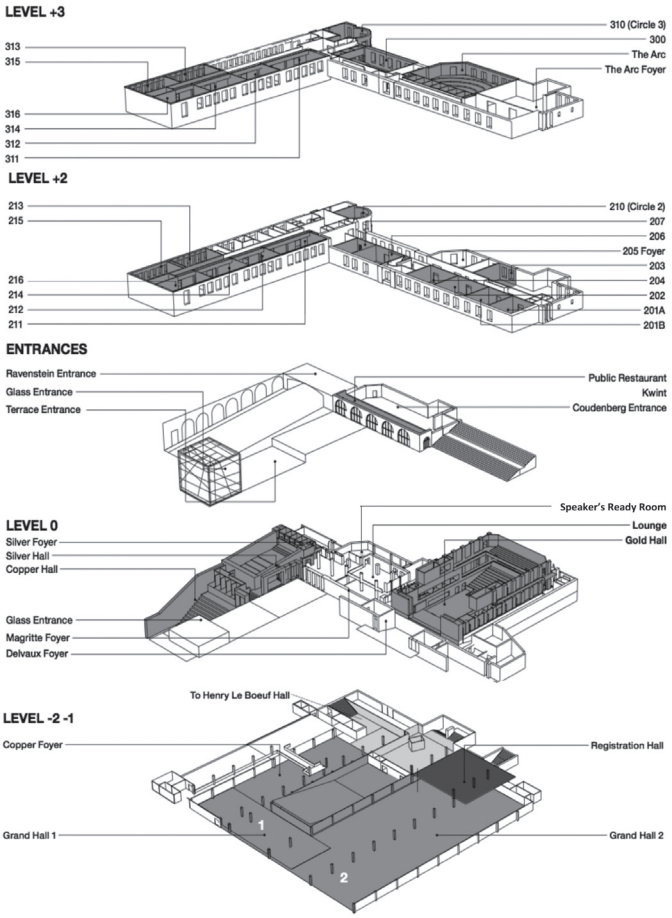
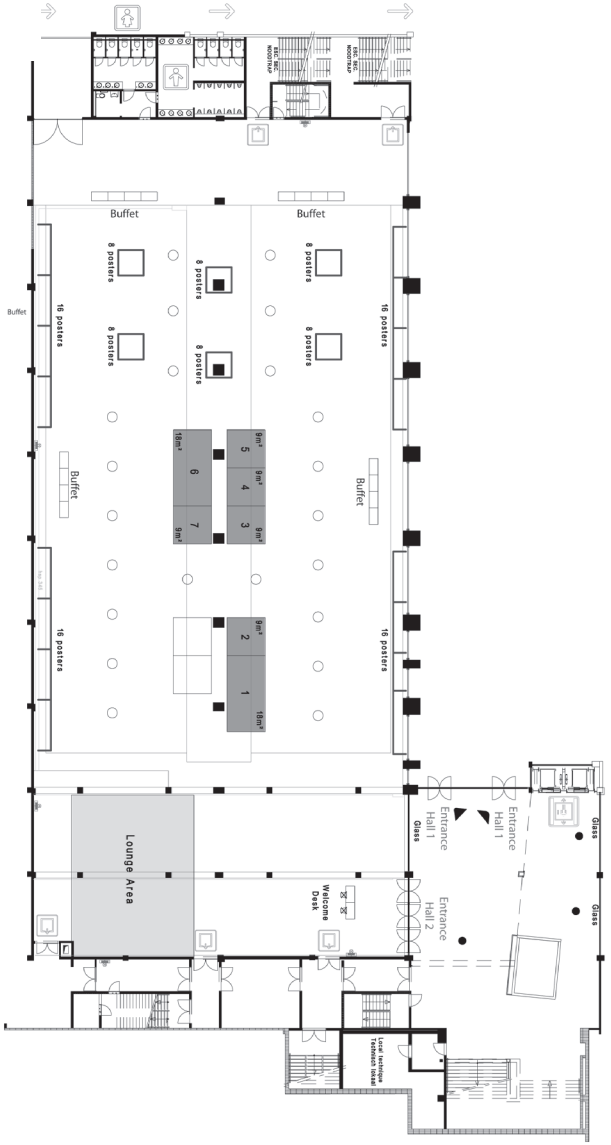
Floor Plans



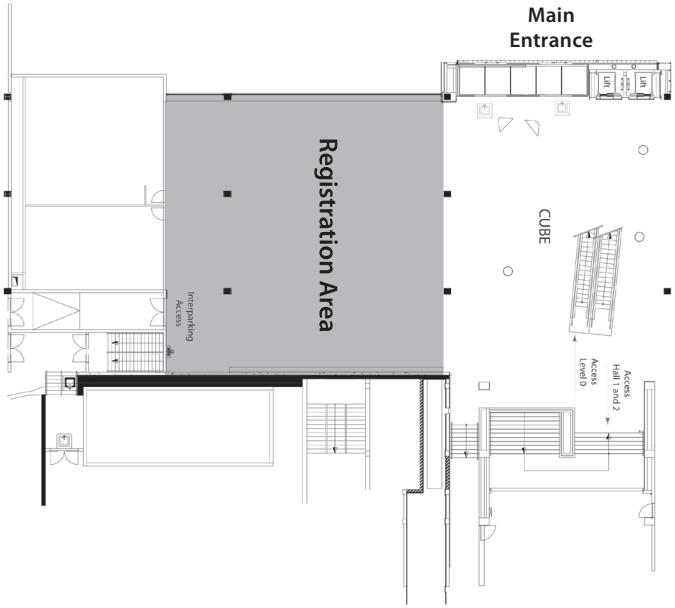
LEVEL -1

Grand Hall 2

Poster sessions
Coffee breaks
Exhibition area



ENTRANCE



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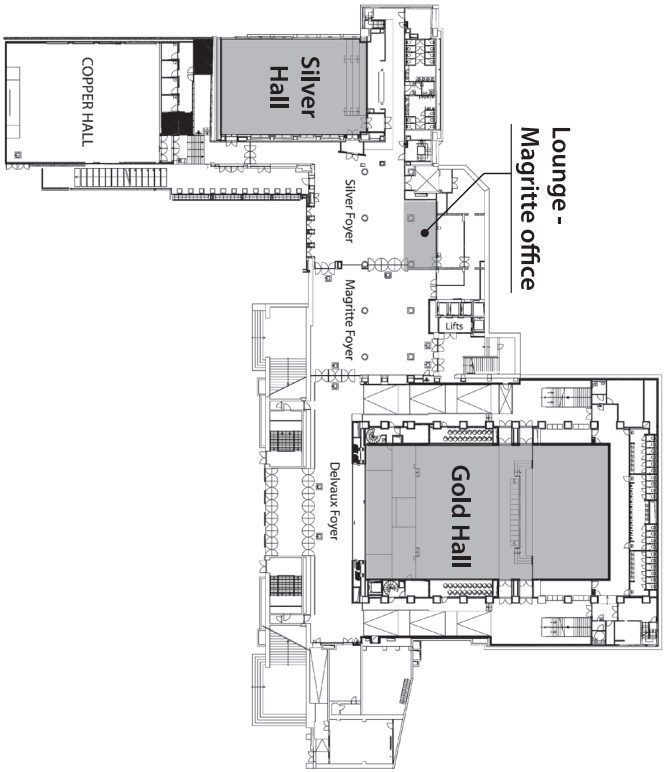

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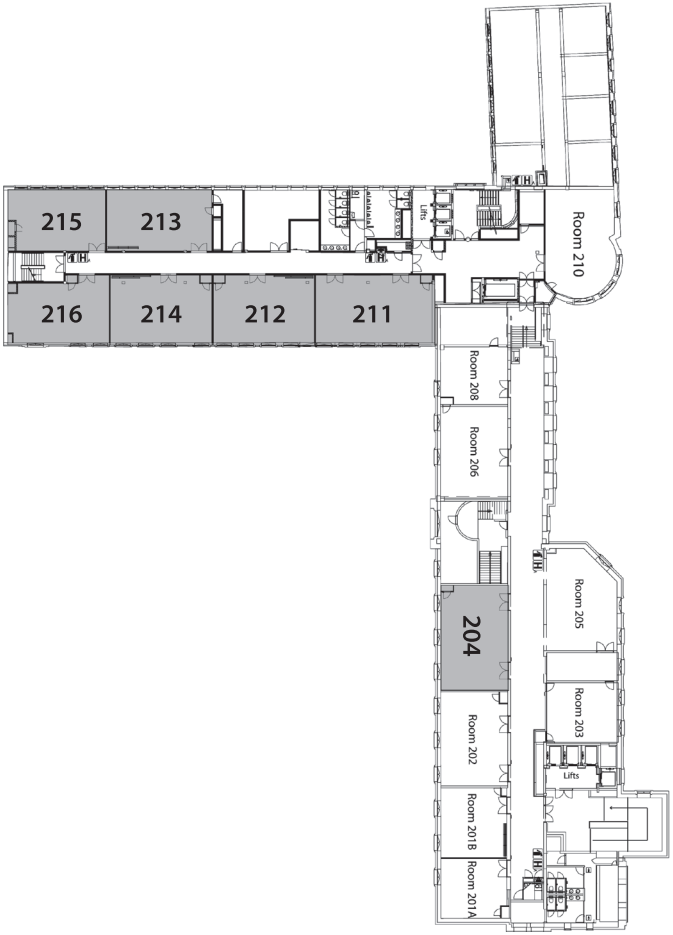

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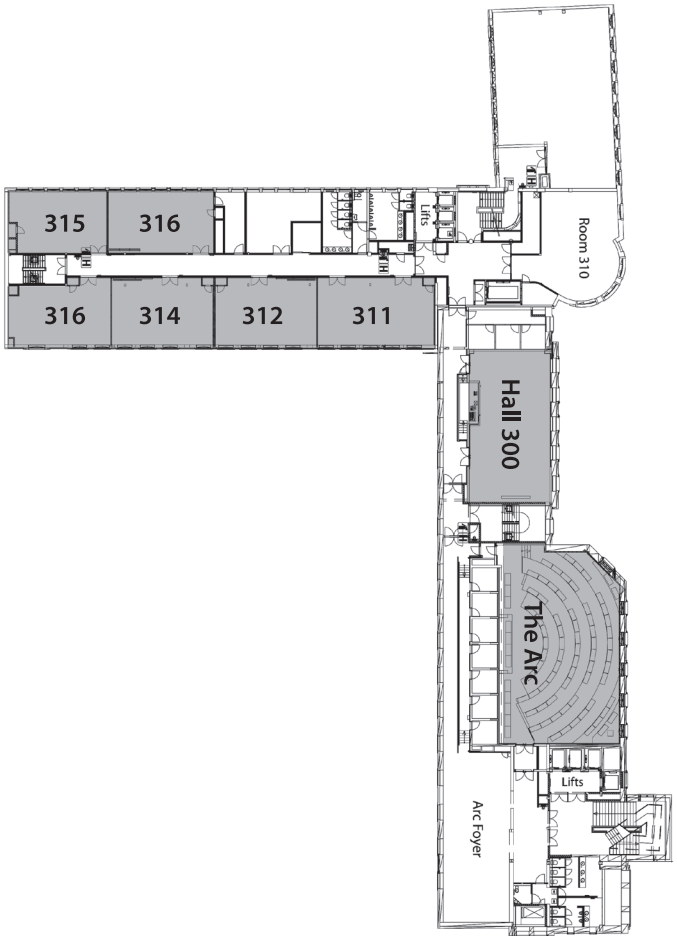

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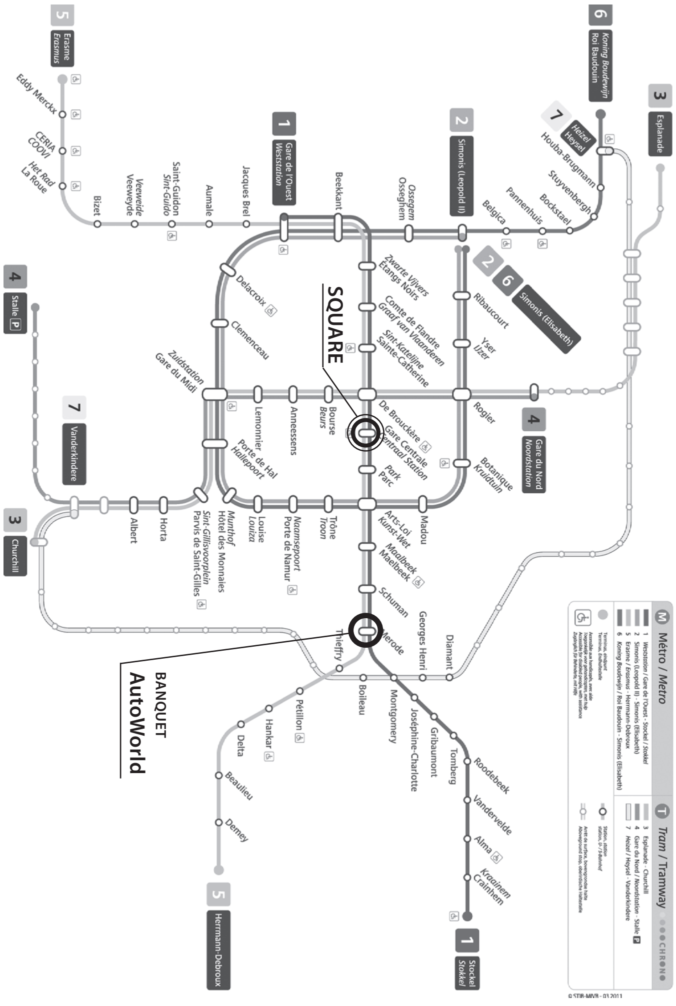
Maps

BRUSSELS
Underground Map (Metro)



Monday, September 12		
Time	**Session / Code**	**Room**
Morning		
Afternoon		

Tuesday, September 13		
Time	**Session / Code**	**Room**
Morning		
Afternoon		

Wednesday, September 14		
Time	**Session / Code**	**Room**
Morning		
Afternoon		

Notes

Notes

Emergency numbers:

101: Police
100: Medical & Fire

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