

ICME07

Technical Program

Monday, July 2, 2007

Whole-day Tutorial

- MW-T1 Multimedia Security Technologies for Digital Rights Management
Wenjun Zeng, University of Missouri (zengw@missouri.edu)
Bin Zhu, Microsoft Research Asia (binzhu@microsoft.com)
Hongxia Jin, IBM Almaden Research Center (jin@us.ibm.com)
Qibin Sun, Institute of Infocomm Research (qibin@i2r.a-star.edu.sg)
Ching-Yung Lin, IBM Watson Research Center (chingyung@us.ibm.com)
Heather Yu, Huawei Technologies US (heathery@research.panasonic.com)

AM Tutorials

- MA-T1 Distributed Video Coding: An Overview and Roadmap
Zixiang Xiong
Dept of Electrical and Computer Engineering, Texas A&M University (zx@ece.tamu.edu)
MA-T2 Extended linear and multi-linear methods for multimodal signal processing
Fernando De la Torre, Carnegie Mellon University (ftorre@cs.cmu.edu)
MA-T3 MPEG Multimedia Standards: Evolution and Recent Developments
Fernando Pereira, Instituto Superior Técnico - Instituto de Telecomunicações (fp@lx.it.pt)

PM Tutorials

- MP-T1 High-Dynamic Range Imaging
Guoping Qiu, School of Computer Science, The University of Nottingham, Jubilee Campus, United Kingdom (qiu@cs.nott.ac.uk)
MP-T2 Human-Centered Multimedia
Thomas S. Huang, University of Illinois at Urbana-Champaign, US (huang@ifp.uiuc.edu)
Alejandro (Alex) Jaimes, FXPAL Japan, Fuji Xerox Co. Ltd., Japan (alex.jaimes@fujixerox.co.jp)
Nicu Sebe, University of Amsterdam, The Netherlands, (nicu@science.uva.nl)
MP-T3 Multimedia Signal Processing on Personal Computers
Yen-Kuang Chen, Senior Staff Researcher, Intel Corporation (yen-kuang.chen@intel.com)

Reception: (night)

Tuesday, July 3, 2007

08:30-09:00 Opening Ceremony

09:00-10:10 Key Note 1
Computer Vision in Medicine and Neuroscience: Image guided neurosurgery and computational neuroanatomy
Eric Grimson, MIT, US

10:10-10:40 Coffee Break

10:40-11:50 Key Note 2
Implementation challenges for advanced multimedia compression
Peter Pirsch, Leibniz University of Hannover, Germany

13:30-15:10 Oral (30 papers in 6 rooms)

T-L1 SS-01 Multimedia Forensics

Chair: Sabu Emmanuel, Nanyang Technological University
Mohan Kankanhalli, National University of Singapore

- T-L1.1 Detecting Digital Image Forgeries by Measuring Inconsistencies of Blocking Artifact
Qibin Sun (I2R, SG); Shuiming Ye (Institute for Infocomm Research, SG); Ee-Chien Chang (National University of Singapore, SG)
- T-L1.2 A Survey on Image Forensic Methods
Lanh Tran Van (Uppsala University, SE); Kai-Sen Chong (Nanyang Technological University, SG); Sabu Emmanuel (Nanyang Technological University, SG); Mohan Kankanhalli (National University of Singapore, SG)
- T-L1.3 Sensor Forensics: Printers, Cameras and Scanners, They Never Lie
Nitin Khanna (Purdue University, US); Aravind Mikkilineni (Purdue University, US); Pei-Ju Chiang (Purdue University, US); Maria Ortiz (Purdue University, US); Sungjoo Suh (Purdue University, US); George Chiu (Purdue University, US); Jan Allebach (Purdue University, US); Ed Delp (Purdue University, US)
- T-L1.4 Improvements on Sensor Noise Based Source Camera Identification
Yagiz Sutcu (Polytechnic University, US); Sevinc Bayram (Polytechnic University, US); Husrev Sencar (Polytechnic University, US); Nasir Memon (Polytech University, US)
- T-L1.5 Image Splicing Detection Using Camera Response Function Consistency and Automatic Segmentation
Jessie Hsu (Columbia University, US); Shih-Fu Chang (Dept. of E.E. , Columbia Univ., US)

T-L2 SS-02 P2P Multimedia Content Access and Distribution (I)

Chair: Heather Yu, Huawei Technologies US
Zhu Liu, AT & T Laboratories
Madjid Merabti, Liverpool John Moores University
Deepa Kundur, Texas A&M University

- T-L2.1 On the Efficiency of Peer-to-Peer File Sharing
Dongyu Qiu (Concordia University, CA); Wei Qian Sang (Graduate student of Concordia University, CA)
- T-L2.2 Peer-to-Peer Streaming Scheduling to Improve Real-Time Latency
Jiaming Li (Nanyang Technological University, SG); Chai Kiat Yeo (Nanyang Technological University, SG); Bu Sung Lee (Nanyang Technological University, SG)
- T-L2.3 Server-Aided Adaptive Video Streaming Over Multi-hop Path
Jinfeng Zhang (Beijing University of Aeronautics and Astronautics, CN); Ronggang Wang (France Telecom R&D Beijing, CN); Zhen Ren (France Telecom R&D Beijing, CN); Jianwei Niu (Beijing University of Aeronautics and Astronautics, CN)
- T-L2.4 Exploiting Overlay Path-Diversity for Scalable Reliable Multicast
Yingnan Zhu (Univ. of Missouri, US); Wenjun Zeng (Univ. of Missouri, Columbia, US); Haibin Lu (University of Missouri - Columbia, US)
- T-L2.5 P2P Video Live Streaming with MDC: Providing Incentives for Redistribution
Zhengye Liu (Polytechnic University, US); Yanming Shen (Polytechnic University, US); Shiv Panwar (Polytechnic University, US); Keith W. Ross (Brooklyn Polytech, US); Yao Wang (Polytechnic University, US)

T-L3 Content Track 1: Audio, Music, and Speech

Chair: Zhengyou Zhang, Microsoft Corp., US
Suh-Yin Lee, National Chiao Tung University, TW

- T-L3.1 Exploring Discriminative Learning for Text-independent Speaker Recognition
Ming Liu (UIUC, US); Zhengyou Zhang (Microsoft Corporation, US); Mark Hasegawa-Johnson (University of Illinois, at Urbana-Champaign, US); Thomas Huang (University of Illinois at Urbana-Champaign, US)
- T-L3.2 Pop Music Beat Detection in the Huffman Coded Domain
Zhu Jia (National University of Singapore, SG); Ye Wang (National University of Singapore, SG)
- T-L3.3 A Musical Audio Search Method Based on Self-Similarity Features
Tomonori Izumitani (Nippon Telegraph and Telephone Corporation, JP); Kunio Kashino (NTT Corporation, JP)
- T-L3.4 A Tempo Analysis System for Automatic Music Accompaniment

- Hua-Tsung Chen (National Chiao-Tung University, TW); Ming-Ho Hsiao (National Chiao-Tung University, TW); Wen-Jiin Tsai (National Chiao-Tung University, TW); Suh-Yin Lee (National Chiao Tung University, Taiwan, R. O. C., TW); Jen-Yu Yu (Industrial Technology Research Institute, TW)
- T-L3.5 Word Topical Mixture Models for Extractive Spoken Document Summarization
Berlin Chen (National Taiwan Normal University, TW); Yi-Ting Chen (National Taiwan Normal University, TW)

T-L4 S&A Track 1: Computer Architectures and Networks for Multimedia Systems
Chair: Jun Li, Tsinghua University, China

- T-L4.1 A Flexible Starting Point Based Partial Caching Algorithm for Video On Demand
Lian Shen (Munich University of Technology, DE); Wei Tu (Munich University of Technology, DE); Eckehard Steinbach (Munich University of Technology, DE)
- T-L4.2 An Efficient DMA Controller for Multimedia Application in MPU Based SOC
Chia-Hao Yu (Industrial Technology Research Institute, TW); Chung-Kai Liu (Industrial Technology Research Institute, TW); Chih-Heng Kang (Industrial Technology Research Institute, TW); Tsun Hsien Wang (Industrial Technology Research Institute, TW); Chih-Chien Shen (Industrial Technology Research Institute, TW); Shau-Yin Tseng (Industrial Technology Research Institute, TW)
- T-L4.3 Dynamic Memory Allocation And Data Sharing Schedule In Media Server
Kaihui Li (Institute of Software, The Chinese Academy of Sciences, CN); Yuanhai Zhang (Institute of Software, the Chinese Academy of Sciences, CN); Jin Xu (Institute of Software, Chinese Academy of Sciences, CN); Changqiao Xu (Institute of Software, The Chinese Academy of Sciences, CN)
- T-L4.4 Multi-Party Audio Conferencing based on a Simpler MCU and Client-Side Echo Cancellation
Junlin Li (Georgia Institute of Technology, US); Liwei He (Microsoft Corporation, US); Dinei Florencio (Microsoft Research, US)
- T-L4.5 BlogIT: Multimedia Chronicling For Improved Capture, Sharing and Retrieval of Solutions in Contact Center Applications
Maja Vukovic (IBM TJ Watson Research Center, US); Shahram Ebadollahi (IBM, US); Mark Podlasek (IBM Research, T.J. Watson, US); Gopal Pingali (IBM TJ Watson Research Center, US)

T-L5 Content Track 2: Scene Analysis and Applications
Chair: Marcel Worring, U. of Amsterdam, NL
Wen Gao, Peking University, CN

- T-L5.1 Wearable Assistance for the Ballroom-Dance Hobbyist Holistic Rhythm Analysis and Dance-Style Classification
Florian Eyben (Technische Universitaet Muenchen, DE); Bjoern Schuller (Technische Universitaet Muenchen, DE); Stephan Reiter (Technische Universität München, DE); Gerhard Rigoll (Technische Universitaet Muenchen, DE)
- T-L5.2 Scene Recognition with Camera Phones for Tourist Information Access
Joo-Hwee Lim (Institute for Infocomm Research, SG); Yiqun Li (Institute for Infocomm Research, SG); Yilun You (I2R, SG); Jean-Pierre Chevallet (IPAL, SG)
- T-L5.3 Dealing with Degenerate Input in 3D Modeling of Indoor Scenes Using Handheld Cameras
Dang Trung Kien (University of Amsterdam, The Netherlands, NL); Marcel Worring (University of Amsterdam, NL)
- T-L5.4 Ranking with Uncertain Labels
Shuicheng Yan (University of Illinois at Urbana-Champaign, US); Huan Wang (Chinese University of Hong Kong, HK); Xiaou Tang (the Chinese University of Hong Kong, HK); Thomas Huang (University of Illinois at Urbana-Champaign, US)
- T-L5.5 Highlight Ranking for Racquet Sports Video in User Attention Subspaces Based on Relevance Feedback
Yijia Zheng (Graduate School of the Chinese Academy of Sciences, CN); Guangyu Zhu (Harbin Institute of Technology, CN); Shuqiang Jiang (Institute of Computing Technology, Chinese Academy of Sciences, Beijing 100080, CN); Qingming Huang (Graduate School of Chinese Academy of Sciences, CN); Wen Gao (Peking University, CN)

T-L6 Coding Track 1: Video Coding and Error Resilience: Error control
Chair: Homer Chen, National Taiwan University, Taiwan

- T-L6.1 New Spatial Error Concealment using Dynamic Texture Estimation and Geometric Interpolation
Wuttipong Kumwilaisak (King Mongkut's University of Technology, Thonburi, TH)
- T-L6.2 Efficient Alternative to Intra Refresh using Reliable Reference frames

- Sarat Chandra Vadapalli (Ittiam Systems (P) Ltd., IN); Harish Shetiya (Ittiam Systems (P) Ltd., IN);
Sriram Sethuraman (Ittiam Systems (P) Ltd., IN)
- T-L6.3 An Edge-Adaptive Block Matching Algorithm for Error Concealment
Sang-Heon Lee (Seoul National University, KR); MJ Cho (Seoul National University, KR); Hyuk-Jae Lee (Seoul National University, KR)
- T-L6.4 Video Coding with Spatio-temporal Texture Synthesis
Chunbo Zhu (University of Science and Technology of China, CN); Xiaoyan Sun (Microsoft Research Asia, TW); Feng Wu (Microsoft Research Asia, CN); Houqiang Li (University of Science and Technology of China, CN)
- T-L6.5 Using Deformable Surface Models to Derive a DCT-Like 2D Transform
Michail Krinidis (Aristotle University of Thessaloniki, GR); Nikos Nikolaidis (Aristotle University of Thessaloniki, GR); Ioannis Pitas (ARISTOTLE UNIVERSITY OF THESSALONIKI, GR)

15:10-15:40 Coffee Break

15:40-17:40 Oral (36 papers in 6 rooms)

T-L7 SS-03 High Performance Medical Imaging

Chair: Leiguang Gong, Watson Research Center, IBM
Giridharan Iyengar, IBM TJ Watson Research Center
Rie Ando, IBM Watson Research Center

- T-L7.1 Volume Graph Model For 3D Facial Surface Extraction
Lei Wu (University of Science and Technology of China, CN); Houqiang Li (University of Science and Technology of China, CN); Nenghai Yu (University of Science and Technology of China, CN); Mingjing Li (Microsoft Research Asia, CN)
- T-L7.2 Accelerating Mutual-information-based Linear Registration on the Cell Broadband Engine Processor
Moriyoshi Ohara (IBM, US); Hangu Yeo (IBM, US); Frank Savino (IBM, US); Giridharan Iyengar (IBM TJ Watson Research Center, US); Leiguang Gong (Watson Research Center, IBM, US); Hiroshi Inoue (IBM Tokyo Research Laboratory, JP); Hideaki Komatsu (IBM Tokyo Research Laboratory, JP); Vadim Sheinin (IBM, US); Shahrokh Daijavad (IBM, US)
- T-L7.3 Parallel Implementation for 3-D CT Image Reconstruction on Cell Broadband Engine
Masaharu Sakamoto (IBM Japan, JP); Masana Murase (IBM Japan, JP)
- T-L7.4 Ocular Fundus Blood Vessel Recognition Using Repeated Application of the ICP Algorithm
Samuel Chang (Chung-Ang University, KR); Duk-Sun Shim (Chung-Ang University, KR); Joe Fuller (Marshall University, US); Cheol-Kwan Yang (Chung-Ang University, KR)
- T-L7.5 Progress in High Performance Medical Imaging
Casimir Kulikowski (Rutgers University, US); Leiguang Gong (Watson Research Center, IBM, US)
- T-L7.6 Image Restoration with Intensity Preservation from Fluorescein Angiogram Sequences
Xiaoxin Guo (Jilin University, CN)

T-L8 Coding Track 2: Human Perception

Chair: Ping Xue, Nanyang Technological University, Singapore

- T-L8.1 Integrated Image Enhancement and Artifacts Reduction Based on Frequency Bands Manipulation
Ling Shao (Philips Research Laboratories, NL); Harm Heijden (NXP Semiconductors, NL)
- T-L8.2 Quality Assessment for Image Coding Based On Matching Pursuit
Jianxin Pang (University of Science and Technology of China, CN); Rong Zhang (University of Science and Technology of China, CN); Lu Lu (University of Science and Technology of China, CN); Zhengkai Liu (University of Science and Technology of China, CN)
- T-L8.3 A computational model of saliency depletion/recovery phenomena for the salient region extraction of videos
Clement Leung (University of British Columbia, CA); Akisato Kimura (NTT Corporation, JP); Tatsuto Takeuchi (NTT Corporation, JP); Kunio Kashino (NTT Corporation, JP)
- T-L8.4 Macrobloc-Level Adaptive Frequency Weighting
Chen Jianwen (Tsinghua University, CN); Jianhua Zheng (Hisilicon Technologies Co., Ltd, CN); ShunLiang Mei (Tsinghua University, CN); Yun He (Tsinghua University, CN)
- T-L8.5 Objective Perceptual Video Quality Measurement Using A Foveation-Based Reduced Reference Algorithm
Fang Meng (Communication University of China, CN)
- T-L8.6 Graph-based Perceptual Quality Model for Audiovisual Contents
Truong Thang (ETRI, KR); Jungwon Kang (ETRI, KR); Yong Man Ro (Information Communication Univ, KR)

T-L9 SS-06 Intelligent Mobile and Embedded Systems

Chair: Matthew Ma, IPV Inc

Xiaoyi Jiang, University of Muenster

Patrick Wang, Northeastern University

- T-L9.1 A Fast, Robust Watermark Detection Scheme for Videos Captured on Camera Phones
Takao Nakamura (NTT, JP); Susumu Yamamoto (NTT West Corporation, JP); Ryo Kitahara (NTT, JP); Atsushi Katayama (NTT, JP); Takayuki Yasuno (NTT Corporation, JP); Noboru Sonehara (National Institute of Informatics, JP)
- T-L9.2 Distributed Source Coding Under Noisy Transmission Environments
Guogang Hua (Florida Institute of Technology, US); Lei Cao (The University of Mississippi, US); Chang Wen Chen (Florida Institute of Technology, US)
- T-L9.3 Context-Aware Informative Display
Manli Zhu (I2R, SG); Daqing Zhang (Institute for Infocomm Research, SG); Jun Zhang (Nanyang Technological University, SG); Brian Lim (Institute for Infocomm Research, SG)
- T-L9.4 Context-Aware Framework for Spontaneous Interaction of Services in Multiple Heterogeneous Spaces
Brian Lim (Institute for Infocomm Research, SG); Daqing Zhang (Institute for Infocomm Research, SG); Manli Zhu (I2R, SG); Song Zheng (Institute for Infocomm Research, SG)
- T-L9.5 A Recommender Framework For Electronic Programming Guide On A Mobile Device
Matthew Ma (IPV Inc, US); Jingbo Zhu (ISI, US); Jinhong Guo (Panasonic Information and Networking Technologies Laboratory, US)
- T-L9.6 A Low Resource Consumption Image Region Extraction Algorithm for Mobile Devices
Jinhong Guo (Panasonic Information and Networking Technologies Laboratory, US); Matthew Ma (IPV Inc, US)

T-L10 Coding Track 3: Speech and Audio Processing

Chair: Jianfeng Chen, Institute for Infocomm Research, Singapore

- T-L10.1 Investigating Data Selection for Minimum Phone Error Training of Acoustic Models
Shih-Hung Liu (National Taiwan Normal University, TW); Fang-Hui Chu (National Taiwan Normal University, TW); Shih-Hsiang Lin (National Taiwan Normal University, TW); Berlin Chen (National Taiwan Normal University, TW)
- T-L10.2 A New Automated Approach for Identification of Respiratory Sounds
Feng Jin (Nanyang Technological University, SG); Farook Sattar (Nanyang Technological University, SG)
- T-L10.3 Adaptive Bit-Plane Scanning for Scalable Audio
Te Li (Institute for Infocomm Research, SG); Susanto Rahardja (Institute for Infocomm Research, SG); Soo Ngee Koh (Nanyang Technological University, SG)
- T-L10.4 Generation of Speaker Mixture Voice using Spectrum Morphing
Kohei Furuya (Keio University, JP)
- T-L10.5 A Novel Method For Automatic Tonal And Non-Tonal Language Classification
Liang Wang (University of New South Wales, AU); Eliathamby Ambikairajah (University of New South Wales, AU); Eric Choi (National ICT Australia, AU)
- T-L10.6 Normalized Double-Talk Detection Based on Microphone and AEC Error Cross-Correlation
Asif Mohammad (University of Missouri-Rolla, US); Jack W Stokes (Microsoft, US); Steven Grant (University of Missouri-Rolla, US)

T-L11 Coding Track 4: H.264: Fast H.264

Chair: Oscar Au, Hong Kong University of Science and Technology, Hong Kong

- T-L11.1 Fast mode decision for h.264 video encoder based one MB motion characteristic
Xiangwen Wang (Shanghai Jiaotong University, CN)
- T-L11.2 Ultra Low-Complexity Fast Variable Block Size Motion Estimation Algorithm in H.264/AVC
Song Yang (Waseda University, JP); Zhenyu Liu (Waseda University, JP); Takeshi Ikenaga (Waseda University, JP); Satoshi Goto (Waseda University, JP)
- T-L11.3 Local Reference with Early Termination in H.264 Motion Estimation
Xiao Su (San Jose State University, US); Sweta Singh (San Jose State University, US); Yan Bai (Columbus State University, US)
- T-L11.4 Advanced Lagrange Multiplier Selection for Hybrid Video Coding
Xiang Li (University of Erlangen-Nuremberg, DE); Norbert Oertel (Siemens Corporate Technology, DE); Andreas Hutter (Siemens Corporate Technology, DE); André Kaup (University of Erlangen-Nürnberg, DE)

- T-L11.5 An Effective Global RD Formulation Based Mode Selection Algorithm For Wireless H.264 Communications
Yanling Xu (Tongji University, CN); Wenzhong Qin (Tongji University, CN)
- T-L11.6 Rate-Distortion (RD) Analysis of Subpel Motion Vector Resolution Selection for Video Decoding
Qi Zhang (University of Southern California, US); Yongyang Dai (University of Southern California, US); Siwei Ma (University of Southern California, US); C.C. Jay Kuo (University of Southern California, US)

T-L12 SS-02 P2P Multimedia Content Access and Distribution (II)

Chair: Heather Yu, Huawei Technologies US
Zhu Liu, AT & T Laboratories
Madjid Merabti, Liverpool John Moores University
Deepa Kundur, Texas A&M University

- T-L12.1 BOPPER: Wireless Video Broadcasting with Peer-to-Peer Error Recovery
Shenjia Li (The Hong Kong University of Science and Technology, HK); Gary Chan (The Hong Kong University of Science and Technology, CN)
- T-L12.2 Peer-to-Peer Streaming with Hierarchical Network Coding
Thinh Nguyen (Oregon State, US)
- T-L12.3 Content-Aware P2P Video Streaming With Low Latency
Pierpaolo Baccichet (Max Planck Center for Visual Computing and Communication - Stanford Univ., US); Jeonghun Noh (Stanford University, US); Eric Setton (Stanford University, US); Bernd Girod (Stanford University, US)
- T-L12.4 Advances in Peer-to-peer Content Search
Deepa Kundur (Texas A&M University, US); Zhu Liu (AT & T Laboratories, US); Madjid Merabti (Liverpool John Moores University, UK); Heather Yu (Huawei Technologies US)
- T-L12.5 Improving messaging security in structured P2P overlay networks
Heather Yu (Huawei Technologies US); John Buford (Avaya Labs Research, US); Madjid Merabti (Liverpool John Moores University, UK)
- T-L12.6 Distributed rate allocation in P2P streaming
Yifeng He; Ivan Lee; Ling Guan

13:30-15:10 Poster session I

T-P1 Coding Poster 1: Distributed Video Coding (Paper #:11)
Chair: Antonio Ortega, University of Southern California, US

- T-P1.1 Wyner-Ziv Video Coding with Spatio-Temporal Side Information
Yangli Wang (Xidian University, CN); Jechang Jeong (Hanyang univ., KR); Chengke Wu (xidian university, CN); Song Xiao (Xidian University, CN)
- T-P1.2 Wyner-Ziv Image Coding from Random Projections
Shoulie Xie (Institute for Infocomm Research, SG); Susanto Rahardja (Institute for Infocomm Research, SG); ZhengGuo Li (Media Division, Institute for Infocomm Research, SG)
- T-P1.3 Motion Estimation with Similarity Constraint and Its Application to Distributed Video Coding
Ligang Lu (IBM T. J. Watson Research Center, US)
- T-P1.4 A Transform Domain Classification Based Wyner-Ziv Video Codec
Jinrong Zhang (University of Science and Technology of China, CN); Houqiang Li (University of Science and Technology of China, CN); Qiwei Liu (University of Science and Technology of China, CN); Chang Wen Chen (Florida Institute of Technology, US)
- T-P1.5 Wyner-Ziv Successive Refinement of Video and Rate distortion analysis
Xiaopeng Fan (Hong Kong University of Science and Technology, CN); Oscar Au (HKUST, HK); Yan Chen (Hong Kong University of Science and Technology, HK); Zhou Jiantao (Hong Kong University of Science and Technology, CN); Peter Hon Wah Wong (Hong Kong University of Science & Technology, HK)
- T-P1.6 A Source-Driven Error Recovery Scheme Using Wyner-Ziv Coding
Yongsheng Zhang (Shanghai Jiao Tong University, CN); Hongkai Xiong (Shanghai Jiaotong University, CN); Songyu Yu (Shanghai Jiaotong University, CN); Hui Lv (Shanghai Jiao Tong University, CN)
- T-P1.7 Embedded Side Information Refinement for Pixel Domain Wyner-Ziv video Coding towards UMTS 3G application
Zhuo Xue (Brunel University, UK); Kok Keong Loo (Brunel University, UK); John Cosmas (Brunel University, UK)
- T-P1.8 Wyner-Ziv Video Coding Based on Turbo Codes Exploiting Perfect Knowledge of Parity Bits

- Hu Chen (Technical University of Munich, DE); Eckehard Steinbach (Munich University of Technology, DE)
- T-P1.9 An Iterative Refinement Technique for Side Information Generation in DVC
W A Rajitha J Weerakkody (Brunel University, UK); Anil Fernando (Brunel University, UK); J L Martinez (University of Castilla La Mancha, ES); Pedro Cuenca (Universidad Castilla La Mancha, ES); Francisco Quiles (Universidad Castilla La Mancha, ES)
- T-P1.10 Fast Motion-Estimation-Based Reference Frame Generation in Wyner-Ziv Residual Video Coding
Hu Chen (Technical University of Munich, DE); Eckehard Steinbach (Munich University of Technology, DE)
- T-P1.11 Enhanced Reconstruction of the Quantised Transform Coefficients for Wyner-Ziv Coding
Yuri Vatis (Leibniz Universität Hannover, DE); Sven Klomp (Leibniz Universität Hannover, DE); Joern Ostermann (Leibniz Universität Hannover, DE)
- T-P2 Content Poster 1: Audio/Music/Speech Processing (Paper #:14)
Chair: C C Jay Kuo, Univ. of Southern California, US
Benoit Champagne, McGill University, CA
- T-P2.1 Music emotion classification: a regression approach
Yi-Hsuan Yang (National Taiwan University, TW); Yu-Ching Lin (National Taiwan University, TW); Ya-Fan Su (National Taiwan University, TW); Homer Chen (National Taiwan University, TW)
- T-P2.2 Automatic Generation of Music Thumbnails
Tong Zhang (Hewlett-Packard Laboratories, US); Ramin Samadani (Hewlett-Packard Laboratories, US)
- T-P2.3 Robust Analysis and Weighting on MFCC Components for Speech Recognition and Speaker Identification
Xi Zhou (University of Illinois at Urbana-Champaign, US); Yun Fu (University of Illinois at Urbana-Champaign, US); Ming Liu (UIUC, US); Mark Hasegawa-Johnson (University of Illinois,); Thomas Huang (University of Illinois at Urbana-Champaign, US)
- T-P2.4 Musical Onset Detection with Joint Phase and Energy Features
Wan-Chi Lee (University of Southern California, US); Yu Shiu (University of Southern California, US); C.C. Jay Kuo (University of Southern California, US)
- T-P2.5 Sound Source Segregation Assisted By Audio Watermarking
Yi-Wen Liu (Boys Town National Research Hospital, US)
- T-P2.6 Voiced-Unvoiced-Silence Speech Sound Classification Based on Unsupervised Learning
Huiqun Deng (University of Quebec, CA); Douglas O'shaughnessy (INRS-EMT, Université du Québec, CA)
- T-P2.7 Automatic Music Genre Classification Using Modulation Spectral Contrast Feature
Chang-Hsing Lee (Chung Hua University, TW); Jau-Ling Shih (Chung-Hua University of Taiwan, TW); Kun-Min Yu (Chung Hua University, TW); Jung-Mau Su (Chung Hua University, TW)
- T-P2.8 Speaker Segmentation and Adaptation for Speech Recognition on Multiple-Speaker Audio Conference Data
Zhu Liu (AT & T Laboratories, US); Murat Saraclar (Bogazici University, TR)
- T-P2.9 Audio-Based Estimation of Speakers Directions for Multimedia Meeting Logs
Yuki Yokoe (Osaka University, JP); Yoshimichi Ito (Osaka University, JP); Noboru Babaguchi (Osaka University, JP)
- T-P2.10 Alignment of Speech to Highly Imperfect Text Transcriptions
Alexander Haubold (Columbia University, US); John Kender (Columbia U, US)
- T-P2.11 Temporal Dynamics for Spectral Sub-band Centroid Audio Fingerprints
Minho Jin (Korea Advanced Institute of Science and Technology, KR); Chang Yoo (KAIST, KR)
- T-P2.12 An improved implementation for an auditory-inspired FFT model with application in audio classification
Wei Chu (McGill University, CA); Benoit Champagne (McGill University, CA)
- T-P2.13 Multi-Pitch Estimation Based on Partial Event and Support Transfer
Zhiyao Duan (Tsinghua University, CN); Dan Zhang (Tsinghua University, CN); Changshui Zhang (Automation Department, Tsinghua Univ, CN); Zhenwei Shi (Tsinghua University, CN)
- T-P2.14 A Fixed-Point Algorithm for Blind Separation of Temporally Correlated Sources
Zhenwei Shi (Tsinghua University, CN); Dan Zhang (Tsinghua University, CN); Changshui Zhang (Automation Department, Tsinghua Univ, CN)
- T-P3 S&A Poster 1: Audio, Image/Video Processing for Multimedia Applications (I) (Paper #:6)
Chair: Kiyo Aizawa, University of Tokyo, Japan
- T-P3.1 Optimization and Implementation of H.264 Encoder on DSP Platform
Li Zhuo (Beijing University of Technology, CN)
- T-P3.2 A new multi-mode intra frame error concealment algorithm for H.264/AVC
Yuk Chung (University of Sydney, AU)

- T-P3.3 Fully Format Agnostic Media Resource Adaptation using an Abstract Model for Scalable Bitstreams
Davy Van Deursen (Ghent University - IBBT, BE); Davy De Schrijver (Ghent University - IBBT, BE); Sarah De Bruyne (Ghent University - IBBT, BE); Rik Van de Walle (Ghent University - IBBT, BE)
- T-P3.4 An Efficient and Scalable Smoothing Algorithm of VBR Streams
Kaihui Li (Institute of Software, The Chinese Academy of Sciences, CN); Changqiao Xu (Institute of Software, The Chinese Academy of Sciences, CN); Jin Xu (Institute of Software, Chinese Academy of Sciences, CN); Yuanhai Zhang (Institute of Software, the Chinese Academy of Sciences, CN)
- T-P3.5 Integrated Rate Control and Buffer Management for Scalable Video Streaming
Yuanhai Zhang (Institute of Software, the Chinese Academy of Sciences, CN); Wei Huangfu (Institute of Software, Chinese Academy of Science, CN); Jin Xu (Institute of Software, Chinese Academy of Sciences, CN); Kaihui Li (Institute of Software, The Chinese Academy of Sciences, CN); Changqiao Xu (Institute of Software, The Chinese Academy of Sciences, CN)
- T-P3.6 The Role of Visual Content and Style for Concert Video Indexing
Cees Snoek (University of Amsterdam, NL); Marcel Worring (University of Amsterdam, NL); Arnold Smeulders (University of Amsterdam, NL); Bauke Freiburg (Fabchannel, NL)

T-P4 S&A Poster 2: Multimedia File Systems, Databases, and Retrieval (Paper#:3)

Chair: Jar-Ferr (Kevin) Yang, National Cheng Kung University, Taiwan

- T-P4.1 Retrieving Web Images to Enrich Music Representation
Zhi-Kun Wang (Tsinghua University, CN); Rui Cai (Microsoft Research Asia, CN); Lei Zhang (Microsoft Research Asia, CN); Yu Zheng (Microsoft Research Asia, CN); Jianmin Li (Tsinghua University, CN)
- T-P4.2 Robust Commercial Retrieval in Video Streams
Jinqiao Wang (Institute of Automation(IA) Chinese Academy of Sciences(CAS), CN); Ling-Yu Duan (Institute for Infocomm Research, SG); Qingshan Liu (Rutgers University, US); Hanqing Lu (the Institute of Automation, Chinese Academy of Sciences, CN); Jesse Jin (University of Newcastle, AU)
- T-P4.3 MQF: An XML Based Multimedia Query Format
Kevin Adistambha (University of Wollongong, AU); Christian Ritz (University of Wollongong, AU); Ian Burnett (University Of Wollongong, AU)

15:40-17:40 Poster session II

T-P5 Coding Poster 2: H.264 and Transcoding (Paper #:10)

Chair: Ming-Ting Sun, University of Washington, US

- T-P5.1 Efficient rate control for H.264 using RD-cost
ZhengGuang Xie (Huaihua University, CN); James Liu (Beijing WWCOMS Info Technology, CN)
- T-P5.2 Enhancement Techniques for Intra Block Matching
Kai Lam Tang (The Chinese University of Hong Kong, HK); King Ngan (Chinese University of Hong Kong, HK)
- T-P5.3 A Novel Macroblock Layer Rate Control For H.264/AVC
Heng Yang (Northwestern Polytechnical University, CN); Qing Wang (Northwestern Polytechnical University, CN)
- T-P5.4 Variable Block-based Deblocking Filter for H.264/AVC
Seung-Ho Shin (Chung-Ang University, KR); Young-Joon Chai (Chung-Ang University, KR); Kyu-Sik Jang (Chung-Ang University, KR); Tae-Yong Kim (GSAIM, Chung-Ang Univ, KR)
- T-P5.5 Pre- and Post-shift Filtering for Removing Blocking Effects in Downsizing Transcoding
Haiyan Shu (The Chinese University of Hong Kong, HK); King Ngan (Chinese University of Hong Kong, HK)
- T-P5.6 A Motion Vector Prediction Scheme for MPEG-2 to H.264 Transcoding Based on Smoothness of Motion Vector Field
Xiang Hui Wei (Waseda University, JP); Shen Li (The Graduate School of Information, Production and Systems, Waseda University, JP); Satoshi Goto (Waseda University, JP)
- T-P5.7 Fast Intra Prediction Mode Decision for MPEG-2 to H.264 Transcoding
Xiaojun Tang (Institute of Automation, Chinese Academy of Science, CN); Qingxiu Du (Institute of Automation, Chinese Academy of Science, CN); Shulin Shang (Institute of Automation, Chinese Academy of Science, CN)
- T-P5.8 Reducing Motion Estimation Complexity In MPEG-2 TO H.264 Transcoding
Gerardo Fernandez-Escribano (Instituto de Investigación en Informática de Albacete, ES); Kalva Hari (Florida Atlantic University, US); Pedro Cuenca (University Of Castill La Mancha, ES); Luis Orozco-Barbosa (Dpto. Informática, University of Castilla la Mancha, ES)
- T-P5.9 An Efficient Motion Estimation Method for H.264-based Video Transcoding with Spatial Resolution Conversion

Jiao Wang (University of Waterloo, CA); En-hui Yang (University of Waterloo, CA); Xiang Yu (University of Waterloo, CA)

T-P5.10 Combined SNR and Temporal Scalability for H.264/AVC Using Requantization Transcoding and Hierarchical B Pictures

Jan De Cock (Ghent University - IBBT, BE); Stijn Notebaert (Ghent University - IBBT, BE); Rik Van de Walle (Ghent University - IBBT, BE)

T-P6 Coding Poster 3: Image Processing and Coding (Paper #:8)

Chair: Zicheng Liu, Microsoft Research, US

T-P6.1 A Robust Iterative Super-Resolution Reconstruction of Image Sequences using a Tukey's Biweight Bayesian Approach with Fast Affine Block-Based Registration
Vorapoj Patanavijit (Chulalongkorn University, TH)

T-P6.2 Context-based scalable coding and representation of high resolution art pictures for remote data access
Marie Babel (IETR / INSA Rennes, FR); Olivier Deforges (IETR / INSA Rennes, FR); Laurent Bedat (IETR / INSA Rennes, FR); Jean Motsch (IETR / Saint-Cyr, FR)

T-P6.3 Rate-distortion Optimized Trellis-Coded Quantization
Wei Jiang (Shanghai Jiao Tong Univ., CN); Jun Sun (Shanghai Jiao Tong University, CN); Jia Wang (Shanghai Jiao Tong University, CN)

T-P6.4 An Improved Discrete Particle Swarm Optimizer for Fast Vector Quantization Codebook Design
Yu-Xuan Wang (Nanjing University of Posts and Telecommunications, CN); Qiao-Liang Xiang (Nanjing University of Posts and Telecommunications, CN)

T-P6.5 Modeling Natural Image for Estimating DCT Coefficient Properties of Intra Prediction
Xiaoyang Wu (Zhejiang University, CN); Qichao Sun (Zhejiang University, CN); Ke Zhang (Zhejiang University, CN); Lu Yu (Zhejiang University, CN)

T-P6.6 Order Statistic Filters for Image Interpolation
Ling Shao (Philips Research Laboratories, NL); Meng Zhao (Philips Research Laboratories, NL)

T-P6.7 Image Super-Resolution Framework with Multi-Channel Constraints
Wang Ci (Nanyang Technological University, SG); Xue Ping (Nanyang Technological University, SG); Lin Weisi (Institute for Infocomm Research, SG); Shen Minmin (Nanyang Technological University, SG)

T-P6.8 Image Super-resolution Reconstruction Using Multigrid and Krylov Subspace Accelerative Algorithm
Yu Bing Han (Nanjing University of Science & Technology, CN); Feng Shu (Nanjing University of Science & Technology, CN)

T-P7 Content Poster 2: Multimedia Semantics, Indexing, and Retrieval (I) (Paper #:16)

Chair: Xian-Sheng Hua, Microsoft Research Asia, CN

Zhongfei Zhang, State Univ. of New York at Binghamton, US

T-P7.1 A vector-based approach to broadcast audio database indexing and retrieval
Lei Wang (Nanyang Technological University, SG); Haizhou Li (Institute for Infocomm Research, SG); Eng-Siong Chng (Nanyang Technological University, SG)

T-P7.2 Anisotropic Manifold Ranking for Video Annotation
Jinhui Tang (University of Science and Technology of China, CN); Xian-Sheng Hua (Microsoft Research Asia, CN); Guo-Jun Qi (University of Science and Technology of China, CN); Tao Mei (Microsoft Research Asia, CN); Xiuqing Wu (University of Science and Technology of China, CN)

T-P7.3 A Max Margin Framework on Image Annotation and Multimodal Image Retrieval
Zhen Guo (State University of New York at Binghamton, US); Zhongfei Zhang (State University of New York at Binghamton, US); Eric Xing (Carnegie Mellon University, US); Christos Faloutsos (Carnegie Mellon University, US)

T-P7.4 A Large Scale Concept Ontology for News Stories: Empirical Methods, Analysis, and Improvements
John Kender (Columbia U, US)

T-P7.5 Improving Semantic Concept Detection and Retrieval Using Contextual Estimates
Yusuf Aytar (University of Central Florida, US); Omer Bilal Orhan (University of Central Florida, US); Mubarak Shah (Univ. of Central Florida, US)

T-P7.6 Texture Moment for Content-Based Image Retrieval
Mingjing Li (Microsoft Research Asia, CN)

T-P7.7 Semantic Retrieval with Enhanced Matchmaking and Multi-Modality Ontology
Huan Wang (Nanyang Technological University, SG); Liang-Tien Chia (Nanyang Technological University, SG); Song Liu (Nanyang Technological University, SG)

T-P7.8 Blog Antenna: Summarization of Personal Blog Temporal Dynamics Based on Self-similarity Factorization
Yu-Ru Lin (Arizona State University, US); Hari Sundaram (Arizona State University, US)

T-P7.9 Efficient Near-Duplicate Keyframe Retrieval with Visual Languages Models

- Xiao Wu (City University of Hong Kong, HK); Wanlei Zhao (City University of Hong Kong, HK); Chong-Wah Ngo (City University of Hong Kong, HK)
- T-P7.10 An SVM Framework for Genre-independent Scene Change Detection
Naveen Goela (Mitsubishi Electric Research laboratories, US); Kevin Wilson (MERL, US); Feng Niu (University of Miami, US); Ajay Divakaran (MERL, US); Isao Otsuka (Mitsubishi Electric Corp, JP)
- T-P7.11 Boosting Face Retrieval By Using Relevant Set Correlation Clustering
Duy-Dinh Le (National Institute of Informatics, JP); Shin'ichi Satoh (National Institute of Informatics, JP); Michael Houle (National Institute of Informatics, JP)
- T-P7.12 Content-based image categorization and retrieval using neural networks
Yuhua Zhu (Florida State University, US)
- T-P7.13 Genre-adaptive Near-duplicate Video Segment Detection
Ichiro Ide (Nagoya University, JP); Kazuhiro Noda (Nagoya University, JP); Tomokazu Takahashi (Nagoya University, JP); Hiroshi Murase (Nagoya University, JP)
- T-P7.14 Gaussian representation for 3D point based head model classification based on generalized minimax algorithm
Yu ZhiWen (City university of hong kong, HK); Hau San Wong (City University of Hong Kong, HK)
- T-P7.15 Efficient video object segmentation by Graph-Cut
Jinjun Wang (NEC Laboratories America, Inc., US); Wei Xu (NEC Labs America, US); Shenghuo Zhu (NEC Labs America, US); Yihong Gong (NEC Labs American, US)
- T-P7.16 EMS: Energy Minimization Based Video Scene Segmentation
Zhiwei Gu (University of Science and Technology of China, CN); Tao Mei (Microsoft Research Asia, CN); Xian-Sheng Hua (Microsoft Research Asia, CN); Xiuqing Wu (University of Science and Technology of China, CN); Shipeng Li (Microsoft Research Asia, CN)
- T-P8 S&A Poster 3: Multimedia Information Processing and Retrieval (Paper #:6)
Chair: Guizhong Liu, Xi'an Jiao Tong University, China
- T-P8.1 Using Keyword Spotting and Replacement for Speech Anonymization
Jianfeng Chen (Institute for Infocomm Research, SG); Koksoon Phua (Institute for Infocomm Research, SG)
- T-P8.2 Client-side Relevance Feedback Approach for Image Retrieval in Mobile Environment
Ning Yu (University of Central Florida, US); Kien Hua (University of Central Florida, US); Danzhou Liu (University of Central Florida, US)
- T-P8.3 A Multimedia Content Management and Retrieval System Based on Metadata and Ontologies
Hangkyu Kim (Korea Advanced Institute of Science and Technologies, KR); Chang-Sup Park (University of Suwon, KR); Ji-Youn Park (Korea Advanced Institute of Science and Technology, KR); Byunghee Jung (KAIST (Korea Advanced Institute of Science and Technology), KR); Yoonjoon Lee (KAIST (Korea Advanced Institute of Science and Technology), KR)
- T-P8.4 Interactive Spatio-Temporal Visual Map Model for Web Video Retrieval
Huan-Bo Luan (Institute of Computing Technology, Chinese Academy of Sciences, CN); Shou-Xun Lin (Institute of Computing Technology, Chinese Academy of Sciences, CN); Sheng Tang (Institute of Computing Technology, Chinese Academy of Sciences, CN); Shi-Yong Neo (National University of Singapore, SG); Tat-Seng Chua (National University of Singapore, SG)
- T-P8.5 Exploiting Users' Personal and Public Information for Personal Photo Annotation
Supheakmunkol Sarin (Waseda University, JP); Toshinori Nagahashi (Seiko Epson Corporation, JP); Tadashi Miyosawa (Seiko Epson Corporation, JP); Kameyama Wataru (Waseda University, JP)
- T-P8.6 An Efficient Hierarchical DHT-Based Complex Query for Multimedia Information
Haiyang Zhang (Beijing University of Posts and Telecommunication, CN); Huadong Ma (Beijing University of Posts and Telecommunications, CN)
- T-P9 S&A Poster 4: Multimedia Tools, Applications, and Hypermedia Technologies (I) (Paper #:7)
Chair: Edward Wong, Polytechnic University, US
- T-P9.1 Group Synchronization Control in a Remote Haptic Drawing System
Youchi Kurokawa (Nagoya Institute of Technology, JP); Yutaka Ishibashi (Nagoya Institute of Technology, JP); Toshio Asano (NTT, JP)
- T-P9.2 A Tiling Technology for Creating Extra-Large Scale Terrain
ZhengChun Zhou (Shanghai University, CN); Wanggen Wan (Shanghai University, CN)
- T-P9.3 Distributed Architecture for Large Scale Image-Based Search
Yu Zheng (Microsoft Research Asia, CN); Xing Xie (Microsoft Research Asia, CN); Wei-Ying Ma (Microsoft Research, China, CN)
- T-P9.4 A scheme for system multiplexing and program component identification
Yaqiang Ding (Spreadtrum Communications Inc., CN); Jiang Lin (Spreadtrum Inc., CN); Yi Wang (Spreadtrum Inc., CN); Fuhuei Lin (Spreadtrum Communications Inc., CN); Yi Kang (Spreadtrum Inc., CN)

- T-P9.5 Robust Commercial Detection System
Liang Zhang (Beijing Jiaotong University, CN); Zhenfeng Zhu (Beijing Jiaotong University, CN); Yao Zhao (Beijing Jiaotong University, CN)
- T-P9.6 Development of a Directional Loudspeaker System for Sound Reproduction
Peifeng Ji (The Institute of Acoustics, Chinese Academy of Sciences, Beijing, China, CN); Chao Ye (The Institute of Acoustics, Chinese Academy of Sciences, Beijing, China, CN); Jing Tian (The Institute of Acoustics, Chinese Academy of Sciences, Beijing, China, CN)
- T-P9.7 SICO: A System For Detection of Near-duplicate Images During Search
Jun Jie Foo (RMIT University, AU); Ranjan Sinha (RMIT University, AU); Justin Zobel (RMIT University, AU)

13:30-15:10 Demo session I (Paper #5)

Chair: Jian Lu, Vobile, US

Feng Wu, Microsoft Research Asia, China

- D1.1 A Real-time Score Detection and Recognition Approach in Broadcast Basketball Sports Video
Guangyi Miao (Graduate School of Chinese Academy of Sciences, China); Guangyu Zhu (Harbin Institute of Technology, China); Shuqiang Jiang (Chinese Academy of Sciences, China); Qingming Huang (Graduate School of Chinese Academy of Sciences, China); Changsheng Xu (Institute for Infocomm Research, Singapore); Wen Gao (Chinese Academy of Sciences, China)
- D1.2 POEMS: A Paper Based Meeting Service Management Tool
Qiong Liu (FX Palo Alto Lab, US); Xuemin Liu (FX Palo Alto Lab, US); Chang Hu (University of Maryland, US)
- D1.3 Video Motion Capture by Silhouette Analysis and Pose Optimization
Cheng Chen (Zhejiang University, China); Yueting Zhuang (Zhejiang University, China); Shicong Zhao (Zhejiang University, China); Yin Cheng (Zhejiang University, China)
- D1.4 Brainy Communicator
Haihong Zhang (Institute for Infocomm Research, Singapore); Cuntai Guan (Institute for Infocomm Research, Singapore); Chuanchu Wang (Institute for Infocomm Research, Singapore)
- D1.5 Extensible Platform for Multimedia Analysis (XPMa)
Ronald Glasberg (Technical University Berlin, Germany); Pascal Kelm (Technical University Berlin, Germany); Hao Qin (Technical University Berlin, Germany); Thomas Sikora (Technical University Berlin, Germany)

15:40-17:40 Demo session II (Paper #6)

Chair: Jian Lu, Vobile, US

Feng Wu, Microsoft Research Asia, China

- D2.1 MediaMill: Video Query on Demand Using the RotorBrowser
Ork de Rooij (University of Amsterdam, The Netherlands); Cees G.M. Snoek (University of Amsterdam, The Netherlands); Marcel Worring (University of Amsterdam, The Netherlands)
- D2.2 Low Complexity Multi-Standard Video Player for Portable Multimedia Applications
Guo-An Jian (National Chung Cheng University, Taiwan); Jiun-In Guo (National Chung Cheng University, Taiwan)
- D2.3 Exploring Broadcasting Baseball Videos Based on Multimodal and Multidisciplinary Study
Wei-Ta Chu (National Taiwan University, Taiwan); Ja-Ling Wu (National Taiwan University, Taiwan)
- D2.4 3D Video Applications and Intelligent Video Surveillance Camera and its VLSI Design
Shao-Yi Chien (National Taiwan University, Taiwan); Shao-Yi Chien (National Taiwan University, Taiwan); Chi-Sheng Shih (National Taiwan University, Taiwan); Mong-Kai Ku (National Taiwan University, Taiwan); Chia-Lin Yang (National Taiwan University, Taiwan); Yao-Wen Chang (National Taiwan University, Taiwan); Tei-Wei Kuo (National Taiwan University, Taiwan); Liang-Gee Chen (National Taiwan University, Taiwan)
- D2.5 Virtual Conduction System with Multi-Resolution Wall Display
Wei-Ting Peng (National Taiwan University, Taiwan); En-Wei Huang (National Taiwan University, Taiwan); Wei-Lun Chang (National Taiwan University, Taiwan); Po-Chung Huang (National Taiwan University, Taiwan); Jun-Ying Bai (National Taiwan University, Taiwan); Han-Ru Chen (National Taiwan University, Taiwan); Shao-Yi Chien (National Taiwan University, Taiwan); Shyh-Kang Jeng (National Taiwan University, Taiwan); Yi-Ping Hung (National Taiwan University, Taiwan); Li-Chen Fu (National Taiwan University, Taiwan); Lin-Shan Lee (National Taiwan University, Taiwan)
- D2.6 i-m-Top: An Interactive Multi-Resolution Tabletop Display System
Li-Wei Chan (National Taiwan University, Taiwan); Yi-Wei Chia (National Taiwan University, Taiwan); Yi-Fan Chuang (National Taiwan University, Taiwan); Yi-Ping Hung (National Taiwan University, Taiwan)

Wednesday, July 4, 2007

08:30-09:40 Key Note 3

Internet Video: The Next Big Thing

Prof. Hui Zhang, Carnegie Mellon University, US

09:40-10:10 Coffee Break

10:10-11:40 Panel 1

Video over the Internet

13:30-15:10 Oral (30 papers in 6 rooms)

W-L1 Multimedia Database Track

Chair: Gopal Pingali, gpingali@us.ibm.com

Wu, Yi Y yi.y.wu@intel.com

W-L1.1 3D Model Retrieval based on Depth Line Descriptor

Mohamed Chaouch (Institut National de Recherche en Informatique et Automatique (INRIA), FR);

Anne Verroust-Blondet (Institut National de Recherche en Informatique et Automatique (INRIA), FR)

W-L1.2 Image Search Result Clustering and Re-Ranking via Partial Grouping

Yang Hu (University of Science and Technology of China, CN); Nenghai Yu

(University of Science and Technology of China, CN); Zhiwei Li (Microsoft

Research Asia, CN); Mingjing Li (Microsoft Research Asia, CN)

W-L1.3 Lazy Learning Based Efficient Video Annotation

Meng Wang (University of Science and Technology of China, CN); Xian-Sheng Hua (Microsoft

Research Asia, CN); Yan Song (University of Science and Technology of China,

CN); Richang Hong (University of Science and Technology of China, CN); Li-Rong

Dai (University of Science and Technology of China, CN)

W-L1.4 A Compact and Efficient Color Descriptor for Image Retrieval

Ka-Man Wong (City University of Hong Kong, HK); Lai Man Po (City University of

Hong Kong, HK); Kwok-Wai Cheung (City University of Hong Kong, HK)

W-L1.5 Introducing the data model for a centralized drama production system

Dieter Van Rijsselbergen (Ghent University - IBBT, BE); Maarten Verwaest

(V.R.T., BE); Barbara Van De Keer (Ghent University - IBBT, BE); Rik Van de Walle (Electronics and Information Systems - Multimedia Lab Ghent University - IBBTBelgium)

W-L2 Assurance Track 1: Digital Watermarking

Chair: Jun Tian, Thomson, US

W-L2.1 False Positive Analysis of Correlation Ratio Watermark Detection Measure

Jun Tian (Thomson Corporate Research, United States); Jeffrey Bloom (Thomson Research, United

States); Peter Baum (Thomson Corporate Research, Germany)

W-L2.2 A Novel High-capacity Reversible Watermarking Scheme

Shao-wei Weng (Beijing Jiaotong University, China); Yao Zhao (Beijing Jiaotong University, China);

Jeng-Shyang Pan (Kaohsiung University of Applied Sciences, Taiwan); Rongrong Ni (Beijing

Jiaotong University, China)

W-L2.3 Watermarking in Halftone Images with Kernels-Alternated Error Diffusion and Haar Wavelet Transform

Jing-Ming Guo (National Taiwan University of Science and Technology, Taiwan)

W-L2.4 Data Hiding With Tree Based Parity Check

Richard Y.M. Li (The Hong Kong University of Science and Technology, Hong Kong); Oscar Au

(HKUST, Hong Kong); Kelvin Lai (The Hong Kong University of Science and Technology, Hong

Kong); Carman K.M. Yuk (The Hong Kong University of Science and Technology, Hong Kong); Sui-

Yuk Lam (The Hong Kong University of Science and Technology, Hong Kong)

W-L2.5 Constructing Secure Content-Dependent Watermarking Scheme Using Homomorphic Encryption

Zhi Li (National University of Singapore, Singapore); Xinglei Zhu (Institute for Infocomm Research, A-STAR, Singapore); Yong Lian (National University of Singapore, Singapore); Qibin Sun (I2R, Singapore)

W-L3 Content Track 3: Image/Video Segmentation and Annotation

Chair: Hong-Jiang Zhang, Microsoft Research Asia, CN
Jing Hua, Wayne State University, US

- W-L3.1 Hidden Conditional Random Fields for Meeting Segmentation
Stephan Reiter (Technische Universität München, DE); Bjoern Schuller (Technische Universität München, DE); Gerhard Rigoll (TU München,)
- W-L3.2 Localized Feature Selection for Clustering and Its Application in Image Grouping
Yuanhong Li (Wayne State University, US); Ming Dong (Wayne State University, US); Jing Hua (Wayne State University, US)
- W-L3.3 A Search-Based Web Image Annotation Method
Xiaoguang Rui (University of Science and Technology of China, CN); Nenghai Yu (University of Science and Technology of China, CN); Taifeng Wang (Microsoft Research Asia, CN); Mingjing Li (Microsoft Research Asia, CN)
- W-L3.4 Transductive Inference with Hierarchical Clustering for Video Annotation
Guo-Jun Qi (University of Science and Technology of China, CN); Xian-Sheng Hua (Microsoft Research Asia, CN); Yan Song (University of Science and Technology of China, CN); Jinhui Tang (University of Science and Technology of China, CN); Hong-Jiang Zhang (Microsoft Research Asia, CN)
- W-L3.5 Beyond Accuracy: Typicality Ranking for Video Annotation
Jinhui Tang (University of Science and Technology of China, CN); Xian-Sheng Hua (Microsoft Research Asia, CN); Guo-Jun Qi (University of Science and Technology of China, CN); Zhiwei Gu (University of Science and Technology of China, CN); Xiuqing Wu (University of Science and Technology of China, CN)

W-L4 S&A Track 2: Multimedia Applications: Detection, Tracking, and Recognition (I)

Chair: Baozong Yuan, Beijing Jiaotong University, China
Fatih Porikli, MERL, US

- W-L4.1 Gait History Image: a Novel Temporal Template for Gait Recognition
Jianyi Liu (Xi'an Jiaotong University, CN); Nanning Zheng (Xi'an Jiaotong University, CN)
- W-L4.2 Robust Parking Space Detection Considering Inter-space Correlation
Qi Wu (Carnegie Mellon University, US); Chingchun Huang (Industrial Technology Research Institute, TW); Shih-yu Wang (National Chiao Tung University, TW); Wei-chen Chiu (National Chiao Tung University, TW); Tsuhan Chen (CMU, US)
- W-L4.3 Human Action Recognition Using 2-D Spatio-Temporal Templates
Duan-Yu Chen (Institute of Information Science, Academia Sinica, Taiwan, TW); Sheng-Wen Shih (CSIE, NCNU, TW); Mark Liao (Academia Sinica, TW)
- W-L4.4 Hybrid-Boost Learning For Multi-Pose Face Detection and Facial Expression Recognition
Chung-Lin Huang (Department of Electrical Engineering, National Tsing Hua University, Taiwan, TW); Chih-Ming Fu (Department of Electrical Engineering, National Tsing Hua University, TW)
- W-L4.5 Robust People Detection and Tracking in a Multi-camera Indoor Visual Surveillance System
Tao Yang (Northwestern Polytechnical University, CN); Francine Chen (FX Palo Alto Laboratory, US); Don Kimber (FX Palo Alto Laboratory, Inc., US); Jim Vaughan (FX Palo Alto Laboratory, US)

W-L5 SS-09 Multimedia Retrieval for Biomedical Applications

Chair: Mei Chen, Intel Research Pittsburgh

- W-L5.1 Enable Web-based Interactive Applications of High-resolution 3D Medical Image Data
Danzhou Liu (University of Central Florida, US); Kien Hua (University of Central Florida, US); Ning Yu (University of Central Florida, US)
- W-L5.2 Medical Visual Information Retrieval: State of the Art and Challenges Ahead
Henning Müller (University and Hospitals of Geneva, CH); Xin Zhou (University and Hospitals of Geneva, CH); Adrien Depeursinge (University and Hospitals of Geneva, CH); Mikko Pitkanen (Helsinki Institute of Physics, FI); Jimison Iavindrasana (University and Hospitals of Geneva, CH); Antoine Geissbuhler (University and Hospitals of Geneva, CH)
- W-L5.3 Secure Medical Image Retrieval Over the Internet
Brian Nutter (Texas Tech University, US); Sunanda Mitra (Texas Tech University, US)
- W-L5.4 Interactive Search of Adipocytes in Large Collections of Digital Cellular Images

Adam Goode (Carnegie Mellon Univ, US); Mei Chen (Intel Research Pittsburgh, US); Anil Tarachandani (Merck & Co., Inc., US); Lily Mummert (Intel Research, US); Rahul Sukthankar (Intel Research Pittsburgh, US); Casey Helfrich (Intel Research Pittsburgh, US); Limor Fix (Intel Research Pittsburgh, US); Jeffrey Saltzman (Merck & Co., Inc., US); Mahadev Satyanarayanan (Carnegie Mellon University, US); Alice Stefanni (Merck & Co., Inc., US)

SS-06 Intelligent Mobile and Embedded Systems

W-L5.5 Improving Human Computer Interaction through Embedded Vision Technology
Xiaoyi Jiang (University of Muenster, DE); Antonio Krüger (University of Münster, DE)

W-L6 S&A Track 3: Video Coding and Transmission for Multimedia
Chair: Nasir Memon, Polytechnic University, US

- W-L6.1 Optimized media filtering scheme for layered video streaming
Yongfeng Li (National University of Singapore, SG); Kenneth Ong (National University of Singapore, SG)
- W-L6.2 Low Power Design of High Performance Memory Access Architecture for HDTV Decoder
Tsun Hsien Wang (Industrial Technology Research Institute, TW); Ching-Te Chiu (Department of Computer Science, National Tsing Hua University, TW)
- W-L6.3 Adaptive Video Transmission for OFDMA Systems
Guang-Hua Yang (The University of Hong Kong, HK); Dongxu Shen (University of Hong Kong, CN); Victor Li (University of Hong Kong, CN)
- W-L6.4 Resource-aware high performance scheduling for embedded MPSoCs with the application of MPEG decoding
Parth Malani (Binghamton University, US); Ying Tan (Binghamton University, US); Qinru Qiu (Binghamton University, US)
- W-L6.5 Narrowcasting: Implementation of Privacy Control in SIP Conferencing
Sabbir Alam (University of Aizu, JP); Michael Cohen (University of Aizu, JP); Ashir Ahmed (Kyushu University, JP)

15:10-15:40 Coffee Break

15:40-17:40 Oral (36 papers in 6 rooms)

W-L7 Multimedia Interaction Human Machine Interface Track
Chair: K. Selcuk Candan, Arizona State University, US
Rahul Singh, San Francisco State University, US

- W-L7.1 Enhancing a Driver's Situation Awareness using a Global View Map
Hong Cheng (Carnegie Mellon University, US); Zicheng Liu (Microsoft Research, US); Nanning Zheng (Xi'an Jiaotong University, CN); Jie Yang (Carnegie Mellon University, US)
- W-L7.2 A Haptic-enabled UML CASE Tool
Mohamad Eid (University of Ottawa, CA); Atif Alamri (Ph. D. Student, CA); Abdulmotaleb El Saddik (University of Ottawa, CA)
- W-L7.3 Trailblazing: Video Playback Control by Direct Object Manipulation
Don Kimber (FX Palo Alto Laboratory, Inc., US); Anthony Dunnigan (FX Palo Alto Laboratory, US); Andreas Girgensohn (FX Palo Alto Laboratory, US); Frank Shipman (Texas A&M University, US); Thea Turner (FX Palo Alto Laboratory, US); Tao Yang (Northwestern Polytechnical University, CN)
- W-L7.4 Study and Analysis of User Behavior and Usage Patterns in a Unified Personal Multimedia Information Environment Multimedia Forensics
Rahul Singh (San Francisco State University, US)
- W-L7.5 Whispering Speaker Identification
Qin Jin (Carnegie Mellon University, US); Szu-Chen Jou (Carnegie Mellon University, US); Tanja Schultz (Carnegie Mellon University, US)
- W-L7.6 Learning-based perceptual image quality improvement for video conferencing
Zicheng Liu (Microsoft Research, US); Cha Zhang (Microsoft Research, US); Zhengyou Zhang (Microsoft Corporation, US)

W-L8 SS-10 Mobile Media
Chair: Qi Tian, University of Texas at San Antonio, US
Changsheng Xu, Institute for Infocomm Research, Singapore

- W-L8.1 Bilateral Back-Projection for Single Image Super Resolution
Shengyang Dai (Northwestern University, US); Mei Han (NEC Labs America, US); Ying Wu (Northwestern University, US); Yihong Gong (NEC Labs American, US)
- W-L8.2 A New Multimedia Message Customizing Framework for Mobile Devices
Cunxun Zang (Institute of Automation, Chinese Academy of Sciences, CN); Qingshan Liu (Rutgers University, US); Hanqing Lu (the Institute of Automation, Chinese Academy of Sciences, CN)
- W-L8.3 Semantic Analysis and Personalization for Mobile Media Applications
Changsheng Xu (Institute for Infocomm Research, SG); Qi Tian (University of Texas at San Antonio, US)
- W-L8.4 User and Device Adaptation for Sports Video Content
Yoshimasa Takahashi (Osaka University, JP); Naoko Nitta (Osaka University, JP); Noboru Babaguchi (Osaka University, JP)
- W-L8.5 Clicker - An IPTV Remote Control in Your Cell Phone
Rittwik Jana (AT&T Labs Research, US); Yih-Farn Chen (AT&T Labs - Research, US); David Gibbon (AT&T Labs - Research, US); Yennun Huang (AT&T Laboratories Research, US); Serban Jora (AT&T, US); John Murray (AT&T Labs Research, US); Bin Wei (AT&T Labs - Research, US)
- W-L8.6 Click4BuildingID@NTU: Click for Building Identification with GPS-enabled Camera Cell Phone
Liang-Tien Chia (Nanyang Technological University, SG); Chai Kiat Yeo (Nanyang Technological University, SG); Tat-Jen Cham (Nanyang Technological University, SG); Deepu Rajan (Nanyang Technological University, SG)

W-L9 Networking Track 1: Optimal Network Usage

Chair: Murat Tekalp, Koc University, Turkey

- W-L9.1 A Diffserv Multicasting in Mobile IPv6 Networks
Wu Hsu (University of Ming Chuan, TW); Hao Lin (University of Ilan, TW); Li Wu (University of Ming Chuan, TW); Hao Liu (University of Ming Chuan, TW)
- W-L9.2 A Practical Cross-layer QoS Mechanism for Voice over IP in IEEE 802.11e WLANs
JengFarn Lee (Academia Sinica, Taiwan, TW); Jie-Ming Chen (National Taiwan University, TW); Wanjiun Liao (National Taiwan University, TW); Hsiu-Hui Lee (Department of Computer Science and Information Engineering, National Taiwan University, Taipei, Taiw, TW); Meng Chang Chen (Academia Sinica, TW)
- W-L9.3 Design of a Peer-to-Peer Video-on-Demand System with the Consideration of Fault Exception
King Man Ho (The Hong Kong Polytechnic University, HK); Kwok-Tung Lo (The Hong Kong Polytechnic University, HK)
- W-L9.4 Cooperative Peer-to-Peer Repair for Wireless Multimedia Broadcast
Saqib Raza (University of California, Davis, US); Dan Jue Li (UC Davis, US); Chen-Nee Chuah (University of California, Davis, US); Gene Cheung (HP Labs, JP)
- W-L9.5 Overlay Tree Construction Algorithm for Synchronized Real-time Media Multicast Service over INTERNET
Hyun Chul Joo (University of POSTECH, KR); Hwangjun Song (Pohang University of Science and Technology, KR)
- W-L9.6 Analysis of a Multi-Stream QoS Game for Multi-Path Routing
Hong Man (Stevens Institute of Technology, US); Yang Li (Stevens Institute of Technology, US); Xinhua Zhuang (University of Missouri-Columbia, US)

W-L10 SS-08 Video-based Object and Event Analysis

Chair: Shiguang Shan, ICT-ISVISION Joint R&D Laboratory for Face Recognition, CAS
Qingshan Liu, Rutgers University, US

- W-L10.1 Detecting Anomaly in Videos from Trajectory Similarity Analysis
Yue Zhou (University of Illinois at Urbana-Champaign, US); Shuicheng Yan (University of Illinois at Urbana-Champaign, US); Thomas Huang (University of Illinois at Urbana-Champaign, US)
- W-L10.2 Experiments with Facial Expression Recognition Using Spatiotemporal Local Binary Patterns
Guoying Zhao (University of Oulu, FI); Matti Pietikäinen (University of Oulu, FI)
- W-L10.3 Mining Information of Attack-Defense Status from Soccer Video Based on Scene Analysis
Shuqiang Jiang (Institute of Computing Technology, Chinese Academy of Sciences, Beijing 100080, CN); Qingming Huang (Graduate School of Chinese Academy of Sciences, CN); Wen Gao (ICT, CN)
- W-L10.4 Model-based Markerless Human Body Motion Capture using Multiple Cameras
ChengKai Wan (Institute of Information Science, Beijing Jiaotong University, CN); Bao Zong Yuan (Beijing Jiao Tong University, CN); Zhenjiang Miao (Beijing Jiaotong University, CN)
- W-L10.5 Surveillance and Activity Recognition with Depth Information
Frank Wallhoff (Technische Universität München, DE); Martin Russ (Technische Universität München, DE); Gerhard Rigoll (TU Muenchen,); Johann Göbel (EADS Corporate Research Center Germany, DE); Hermann Diehl (EADS Corporate Research Center Germany, DE)

W-L10.6 Facial Expression Recognition Using Encoded Dynamic Features
Peng Yang (Rutgers University, US); Dimitris Metaxas (Rutgers University, US); Qingshan Liu (Rutgers University, US)

W-L11 Assurance Track 2: Multimedia Assurance

Chair: Susie Wee, HP, US

W-L11.1 Robust Document Image Authentication

Ming Jiang (Polytechnic University, United States); Edward Wong (Polytechnic University, US); Nasir Memon (Polytechnic University, US)

W-L11.2 Identifying computer graphics using HSV color model and statistical moments of characteristic functions

Wen Chen (New Jersey Institute of Technology, US); Yun Q. Shi (NJIT, US); Guorong Xuan (Tongji University, China)

W-L11.3 Image Source Coding Forensics via Intrinsic Fingerprints

Wan-Yi Lin (University of Maryland, College Park, US); Steven Tjoa (University of Maryland, US); Hong Zhao (University of Alberta, Canada); K.J.Ray Liu (University of Maryland College Park, US)

W-L11.4 Image steganography based on quantization-embedders combination

Guangjie Liu (Nanjing University of Science and Technology, China)

W-L11.5 Forensic Watermarking During AAC Playback

Serap K yrb yz (Istanbul Technical University, Turkey); Mehmet Celik (Philips Research Europe, Netherlands); Aweke Lemma (Philips Research Europe, Netherlands); Stefan Katzenbeisser (Philips Research, Netherlands)

Multimedia Interaction Human Machine Interface Track

W-L11.6 A study of a computer mediated communication via the “.” prompt system - Analysis of the affects on the stimulation of thought processes and the inspiration of creative ideas

Li Jen Chen (Waseda University, JP); Nobuyuki Harada (Shibaura Institute of Technology, JP); Shunichi Yonemura (NTT Cyber Solutions laboratory, JP); Jun Ohya (Waseda University, JP); Yukio Tokunaga (Shibaura Institute of Technology, JP)

W-L12 Coding Track 5: Video Coding

Chair: Kiyoharu Aizawa, University of Tokyo, Japan

W-L12.1 Multiple Description Transform Coding: A New Design Approach

Bing Zeng (The Hong Kong University of Science and Technology, HK); Shuyuan Zhu (The Hong Kong University of Science and Technology, HK)

W-L12.2 Soft Input Error Resilient Multiple Description Coding for Rayleigh Fading Channels

Rui Ma (McGill University, CA); Fabrice Labeau (McGill University, CA)

W-L12.3 A New Scalable Multi-View Video Coding Configuration For Robust Selective Streaming Of Free-Viewpoint TV

Nukhet Ozbek (Ege University, TR); A. Murat Tekalp (Koc University, TR); Turhan Tunali (Ege University, TR)

W-L12.4 Statistical analysis and modeling of rate-distortion function in SVC fine-granular SNR scalable videos

Jun Sun (Peking University, CN); Wen Gao (Peking University, CN); Debin Zhao (Harbin Institute of Technology, CN)

W-L12.5 Bit Depth Scalable Coding

Yuwen Wu (Thomson Broadband R&D (Beijing) Co., Ltd., CN); Yongying Gao (Thomson Broadband R&D (Beijing) Co., Ltd., CN); Ying Chen (Tampere University of Technology, FI)

W-L12.6 Bit allocation for fine-granular SNR scalability coding with hierarchical B pictures

Jun Xu (Shanghai Jiao Tong University, CN); Li Song (Shanghai Jiao Tong University, CN); Shibao Zheng (Shanghai Jiaotong University, CN); Xiaokang Yang (Shanghai Jaoton University, CN); Rong Xie (Shanghai Jiao Tong University, CN)

13:30-15:10 Poster session I

W-P1 Coding Poster 4: Multimedia Processing and Coding (Paper #:15)

Chair: Susanto Rahardja (Institute for Infocomm Research, SG)

W-P1.1 Parallel and Distributed Audio Concealment Using Nonlocal Sparse Representations

Xin Li (Lane Department of CSEE, West Virginia University, US)

W-P1.2 A Method to Compress Schema-Based Xml Metadata for Mobile Environments

Jianjun Fang (Motorola Inc., US); Alfonso Martinez-Smith (Motorola Inc., US); Bhavan Gandhi (Motorola Laboratories., US)

- W-P1.3 A New Partial Codeword Updating Scheme Based on Rate-Distortion Optimization for Adaptive Vector Quantization
Kai Guo (City University of Hong Kong, HK); Lai Man Po (City University of Hong Kong, HK)
- W-P1.4 Efficient fast algorithm for mq arithmetic coder
Chengyi Xiong (South-Center University for Nationalities, CN)
- W-P1.5 Texture Based Selective Block Matching Algorithm for Error Concealment
Xueming Qian (Xi'an Jiaotong University, CN); Guizhong Liu (Xi'an Jiaotong University, CN); Huan Wang (Xi'an Jiaotong University, CN)
- W-P1.6 Analog Error-control Coding Based on Dimension-expanding Shannon Mapping for Robust Image Communication
Zhe Wang (Beihang University, CN); Xiaolin Zhang (Beihang University, CN); Lei Chen (Beihang University, CN)
- W-P1.7 A motion-based selective error protection method for scalable video over error-prone channel
Yu Wang (Nanyang Technological University, SG); Lap-Pui Chau (Nanyang Technological University, SG); Kim Hui Yap (Nanyang Technological University, SG)
- W-P1.8 A new optimized error-resilient coding for video applications
Yuk Ying Chung (University of Sydney, AU)
- W-P1.9 3D Face Recognition under Expression Variations Using Similarity Metrics Fusion
Wei-Yang Lin (National Chung Cheng University, TW); Kin-Chung Wong (University of Wisconsin, US); Nigel Boston (University of Wisconsin at Madison, US); Yu Hen Hu (University of Wisconsin-Madison, US)
- W-P1.10 A ZGPCA Algorithm For Subspace Estimation
Haoran Yi (University of Illinois-Urbana Champaign, US); Deepu Rajan (Nanyang Technological University, SG); Liang-Tien Chia (Nanyang Technological University, SG)
- W-P1.11 Kalman Based Periodic Coefficient Update for FIR Adaptive Filters
Nastoo Avessta (University of Ottawa, CA); Tyseer Aboulnasr (University of Ottawa, CA)
- W-P1.12 Joint Source-Channel Decoder for H.264 Coded Video Employing Fuzzy Adaptive Method
Wen-Ta Lee (National Taipei University of Technology, TW); Hsin-Jung Chen (National Taipei University of Technology, TW)
- W-P1.13 Image Transmission over Wireless Channels Using Low Complexity Binary Error Correction Arithmetic Codes
Junqing Liu (China Three Gorges University, CN); Tianhao Li (Advanced Micro Devices Inc.(AMD), US)
- W-P1.14 An Efficient Audio-Video Synchronization Methodology
Ming Yang (Jacksonville State University, US); Nikolaos Bourbakis (Wright State University, US); Zizhong Chen (Jacksonville State University, US); Monica Trifas (Jacksonville State University, US)
- W-P1.15 A High Performance Motion Mode Adaptive Lifting Motion Compensation Wavelet Video Codec
Fan Zhao (Xi'an Jiaotong University, CN); Guizhong Liu (Xi'an Jiaotong University, CN); Nan Nan (Xi'an Jiaotong University, CN)

W-P2 Content Poster 3: Multimedia Semantics, Indexing, and Retrieval (II) (Paper #:15)

Chair: Tat-Seng Chua, National University of Singapore, SG
Jean-Pierre Chevallet, IPAL, SG

- W-P2.1 Use of Generalized Pattern Model For Video Annotation
Yang Xiao (National University of Singapore, SG); Tat-Seng Chua (National University of Singapore, SG); Lekha Chaisorn (Institute for Infocomm Research, Singapore, SG); Chin-Hui Lee (Georgia Institute of Technology, US)
- W-P2.2 Image Annotation Refinement Using NSC-based Word Correlation
Jing Liu (Institute of Automation, Chinese Academy of Sciences, CN); Mingjing Li (Microsoft Research Asia, CN); Qingshan Liu (Rutgers University, US); Jian Cheng (Chinese Academy of Sciences, CN); Hanqing Lu (the Institute of Automation, Chinese Academy of Sciences, CN); Songde Ma (Institute of Automation, Chinese Academy of Sciences, CN)
- W-P2.3 A Probability Model for Image Annotation
Yong Ge (University of Science and Technology of China, CN); Richang Hong (University of Science and Technology of China, CN); Zhiwei Gu (University of Science and Technology of China, CN); Rong Zhang (University of Science and Technology of China, CN); Xiuqing Wu (University of Science and Technology of China, CN)
- W-P2.4 An error-tolerant video retrieval method based on the shot composition sequence in a scene
Isao Kondo (NTT Cyber Solutions Laboratories, NTT Corporation, JP); Satoshi Shimada (NTT Corporation, JP); Masashi Morimoto (NTT Corporation, JP)
- W-P2.5 Knowledge-Assisted Medical Image Retrieval
Joo-Hwee Lim (Institute for Infocomm Research, SG); Caroline Lacoste (Institute for Infocomm Research (I2R), SG); Jean-Pierre Chevallet (IPAL, SG); Diem LE (IPAL, SG)
- W-P2.6 Exploiting Personal And Social Network Context For Event Annotation

- Hari Sundaram (Arizona State University, US); Lexing Xie (IBM Research, US); Bageshree Shevade (Arizona State University, US)
- W-P2.7 Semantic Segmentation of Radio Programs Using Social Network Analysis and Duration Distribution Modeling
Alessandro Vinciarelli (IDIAP Research Institute, CH)
- W-P2.8 News Video Retrieval Using Implicit Event Semantics
Shi-Yong Neo (National University of Singapore, SG); Yan-Tao Zheng (National University of Singapore, SG); Hai-Kiat Goh (National University of Singapore, SG); Tat-Seng Chua (National University of Singapore, SG); Sheng Tang (Institute of Computing Technology, Chinese Academy of Sciences, CN)
- W-P2.9 Image Annotation in a Progressive Way
Bin Wang (University of Science and Technology of China, CN); Zhiwei Li (Microsoft Research Asia, CN); Nenghai Yu (University of Science and Technology of China, CN); Mingjing Li (Microsoft Research Asia, CN)
- W-P2.10 A Novel Event-Oriented Segment-of-Interest Discovery Method
Peng Cui (Tsinghua University, CN); Lifeng Sun (Tsinghua University, CN); Wang Zhi (Tsinghua University, CN); Shiqiang Yang (Tsinghua University, CN)
- W-P2.11 Compressed Domain Texture Retrieval Based on I-Frame Coding in H.264
Farzad Zargari (Iran Telecom Research Center, IR); Mahdi Mehrabi (Islamic Azad University, IR); M. Shahram Moin (Iran Telecom Research Center, IR)
- W-P2.12 Interactive Visualization Tool With Graphic Table Of Video Content
Hervé Goëau (Institut National de l'Audiovisuel, FR); Jérôme Thièvre (Institut National de l'Audiovisuel, FR); Marie-Luce Viaud (Institut National de l'Audiovisuel, FR); Denis Pellerin (Laboratoire des Images et des Signaux, FR)
- W-P2.13 Codebook+: A New Module for Creating Discriminative Codebooks
Ziming Zhang (Nanyang Technological University, SG); Syin Chan (Nanyang Technological University, SG); Liang-Tien Chia (Nanyang Technological University, SG)
- W-P2.14 Robust Video Object Segmentation Based on K-Means Background Clustering and Watershed in Ill-Conditioned Surveillance Systems
Tse-Wei Chen (National Taiwan University, TW); Shou-Chieh Hsu (National Taiwan University, TW); Shao-Yi Chien (National Taiwan University, TW)
- W-P2.15 Anchorperson Shot Detection in MPEG Domain
Zhong Ji (Tianjin University, CN); Chuntian Zhang (Tianjin Univ., CN); Yuting Su (Tianjin University, TW)
- W-P3 S&A Poster 5: Multimedia Modeling, Specification, User Interface (Paper#:7)
Chair: Yao Zhao, Beijing Jiaotong University, China
- W-P3.1 Multimodal Diaries
Fernando De la Torre (Carnegie Mellon University, US); Carlos Agell (Carnegie Mellon University, US)
- W-P3.2 Evaluating Ouda's Tamper-localization Watermarking Scheme
Yongdong Wu (Institute for Infocomm Research, SG); Bo Qiu (Institute for Infocomm Research, SG); Feng Bao (Institute for Infocomm Research, SG)
- W-P3.3 Cascading Multimodal Verification Using Face, Voice and Iris Information
Ping-Han Lee (National Taiwan University, TW); Lu-Jong Chu (National Taiwan University, TW); Yi-Ping Hung (National Taiwan University, TW); Sheng-Wen Shih (CSIE, NCNU, TW); Chu-Song Chen (Institute of Information Science, Academia Sinica, Taiwan, TW); Hsin-Min Wang (Academia Sinica, TW)
- W-P3.4 Adaptive Weight Selection for Incremental Eigen-Background Modeling
Jian Zhang (Zhejiang University, CN); Yueting Zhuang (Zhejiang University, CN)
- W-P3.5 GOP-Level Transmission Distortion Modeling for Unequal Importance Judgement
Chongyang Zhang (Shanghai Jiao Tong University, China, CN); Hua Yang (Shanghai Jiao Tong University, CN); Songyu Yu (Shanghai Jiao Tong University, CN); Xiaokang Yang (Shanghai Jiaotong University, CN); Hao Liu (shanghai jiaotong university, CN)
- W-P3.6 Video Semantic Concept Discovery using Multimodal-based Association Classification
Lin Lin (University of Miami, US); Guy Ravitz (University of Miami, US); Mei-Ling Shyu (University of Miami, US); Shu-Ching Chen (Florida International University, US)
- W-P3.7 Analysis, User Interface, and their Evaluation for Student Presentation Videos
Alexander Haubold (Columbia University, US); John Kender (Columbia U, US)
- W-P4 Assurance Poster 1: Secure Multimedia Distribution (Paper #:10)
Chair: Chun-Shien Lu, Institute of Information Science, Academia Sinica, Taiwan
- W-P4.1 DRM Content Adaptation SCHEME between different DRM Systems for Seamless Content Service

- Yeonjeong Jeong (Electronics and Telecommunications Research Institute, Korea); Jihyun Park (ETRI, Korea); Jeonghyun Kim (Electronics and Telecommunications Research Institute, Korea); Ki-Song Yoon (ETRI, Korea)
- W-P4.2 Analysis of Baptista-type Chaotic Cryptosystem
Ge Xiner (Zhengzhou Information Science and technology Institute, China)
- W-P4.3 Interoperability Issues in DRM and DMP Solutions
Chen Xiaofan (Chinese Academy of Sciences, China); Tiejun Huang (Institute of Computing Technology, Chinese Academy of Sciences, Beijing 100080, China)
- W-P4.4 A dynamic optimal selective control mechanism for multi-datastream security in video conference
Chen Xiao (Beihang University, School of Computer Science and Technology, China); Shilong Ma (Beijing University of Aeronautics and Astronautics, China); Ke Xu (State Key Lab. of Software Develop Environment Beihang University, China); Lifeng Wang (Beijing Electronic Science and Technology Institute, China); Weifeng Lv (Beijing University of Aeronautics and Astronautics, China)
- W-P4.5 Hard Authentication of H.264 Video Applying MPEG-21 Generic Bitstream Syntax Description (GBSD)
Razib Iqbal (University of Ottawa, Canada); Shervin Shirmohammadi (University of Ottawa, Canada); Jiying Zhao (University of Ottawa, Canada)
- W-P4.6 A Distributed Key-Changing Mechanism For Secure Voice Over IP (VOIP) Service
Chia-Hui Wang (Ming-Chuan University, Taiwan); Mei-Wen Li (Computer and Information Network Center, National Taiwan University, Taiwan); Wanjiun Liao (National Taiwan University, Taiwan)
- W-P4.7 A DRM architecture for manageable P2P based IPTV system
Xiaoyun Liu (Chinese Academy of Sciences, China); Tiejun Huang (Institute of Computing Technology, Chinese Academy of Sciences, Beijing 100080, China); Longshe Huo (Institute of Computing Technology, Chinese Academy of Sciences, China); Luntian Mou (Chinese Academy of Sciences, China)
- W-P4.8 Identifying Source Cell Phone Using Chromatic Aberration
Lanh Tran Van (Uppsala University, SE); Sabu Emmanuel (Nanyang Technological University, Singapore); Mohan Kankanhalli (National University of Singapore, Singapore)
- W-P4.9 Attacking some perceptual image hash algorithms
Li Weng (Katholieke Universiteit Leuven, Belgium); Bart Preneel (Katholieke Universiteit Leuven, Belgium)
- W-P4.10 JPEG Steganalysis Based on Classwise Non-principal Components Analysis and Multi-directional Markov Model
Guorong Xuan (Tongji University, China); Xia Cui (Tongji University, China); Yun Q. Shi (NJIT, US); Wen Chen (New Jersey Institute of Technology, US); Xuefeng Tong (Tongji University, China); Cong Huang (Tongji University, China)
- W-P5 Networking Poster 1- Streaming (Paper #:15)
Chair: Yao Wang (Polytechnic University, US)
- W-P5.1 A Fuzzy Multicast Island Partitioning Model for Overlay Multicast Network
Deqiang Cheng (China University of Mining and Technology, CN); Jiansheng Qian (China University of Mining and Technology, CN)
- W-P5.2 Disjoint Multipath QoS Routing and Importance-based Video Layering for Video Over IP Application
Shangming Zhu (University of Missouri-Columbia, US); Xinhua Zhuang (University of Missouri-Columbia, US); Hong Man (Stevens Institute of Technology, US)
- W-P5.3 Minimum-Multiplicity Routing Problems of Multimedia Communications
Shengli Yuan (University of Houston - Downtown, US)
- W-P5.4 Network-aware Multimedia Streaming Using the Kalman Filter over the Wired/Wireless/3G Networks
Chung-Ming Huang (National Cheng Kung University, TW); Chung-Wei Lin (National Cheng Kung University, TW); Chia-Ching Yang (National Cheng Kung University, TW); Xin-Ying Lin (National Cheng Kung University, TW)
- W-P5.5 Generalized scheduler providing multimedia services over HSDPA
Shuping Chen (Beijing University of Posts and Telecommunications, CN)
- W-P5.6 Joint Network and Rate Allocation for Simultaneous Wireless Applications
Dan Jurca (EPFL, CH); Wolfgang Kellerer (DoCoMo EuroLaboratories, DE); Eckehard Steinbach (Munich University of Technology, DE); Shoaib Khan (Munich University of Technology, DE); Srisakul Thakolsri (DoCoMo Euro-Labs, DE); Pascal Frossard (Swiss Federal Institute of Technology - EPFL, CH)
- W-P5.7 A User-driven Transmission Scheme for Voice over IP Applications
Yan Bai (Columbus State University, US); Xiao Su (San Jose State University, US)
- W-P5.8 A Study of Silence Suppression and Real Speech Patterns and their Impact on VoIP Capacity in 802.11 Networks

Sean Ramprashad (DoCoMo Communications Labs, US, US); Christine Pepin (DoCoMo US Labs, Inc, US)

- W-P5.9 Wireless Video Streaming with Collaborative Admission Control for Home Networks
Monchai Lertsutthiwong (Oregon State University, US); Thanh Nguyen (Oregon State University, US); Alan Fern (Oregon State University, US)
- W-P5.10 Robust Transmission of JPEG2000 Encoded Images over Packet Loss Channels
Xiangjun Li (Nanyang Technological University, SG); Jianfei Cai (Nanyang Technological University, SG)
- W-P5.11 Performance Monitoring for Multimedia Traffic using Differentiated Probe (DiffProbe)
Inbong Joo (University of Science and Technology, KR); Jongtae Song (ETRI, Korea, KR); Jongyoul Park (ETRI, KR); Soon-Seok Lee (Electronics and Telecommunications Research Institute, KR); Eui-Hyun Baik (ETRI, KR)
- W-P5.12 Optimal Scheduling of Media Packets with Multiple Distortion Measures
Carri Chan (Stanford University, US); Nicholas Bambos (Stanford University, US); Susie Wee (Hewlett-Packard Laboratories, Palo Alto, CA US, US); John Apostolopoulos (Hewlett-Packard Labs, US)
- W-P5.13 Joint Source Coding and Data Rate Adaptation for Multi-User Wireless Video Transmission
Fan Zhai (Texas Instruments, US); Zhu Li (Motorola Labs, US); Aggelos K. Katsaggelos (Northwestern University, US)
- W-P5.14 Traffic Aware HCCA Scheduling for the IEEE 802.11e Wireless LAN
Kyung Mook Lim (University of Science and Technology, KR); Kang Yong Lee (ETRI, KR); Kyung Soo Kim (ETRI, KR); Seong-Soon Joo (ETRI, KR)
- W-P5.15 Using SINR as Vertical Handoff Criteria in Multimedia Wireless Networks
Kemeng Yang (Monash University, AU); Bin Qiu (Monash University, AU); Laurence Dooley (Monash University, AU)

W-P6 Human Computer Interface Poster 1 (paper # 11)
Chair: Cees Snoek, University of Amsterdam, Netherlands
Qin Jin, Carnegie Mellon University, US

- W-P6.1 An Efficient Markerless Method for Resynthesizing Facial Animation on An Anatomy-Based Model
Yu Zhang (Institute of High Performance Computing, SG); Meng Luo (Nanyang Technological University, SG); Shuhong Xu (Institute of High Performance Computing, SG)
- W-P6.2 Body Detection and Tracking with Hierarchical Scheme in Dynamic Scenes
Xiaofeng Tong (Intel China Research Center, CN); Tao Wang (Intel China Research Center, CN); Yimin Zhang (Intel China Research Center, CA)
- W-P6.3 An automatic eye wink interpretation system for the disable
Chung-Lin Huang (Department of Electrical Engineering, National Tsing Hua University, Taiwan, TW); Wen-Liang Hwang (Institute of Information Science, Academia Sinica, TW)
- W-P6.4 A Vision-Based Real-Time Pointing Arm Gesture Tracking And Recognition System
Chung-Lin Huang (Department of Electrical Engineering, National Tsing Hua University, Taiwan, TW); Chih-Ming Fu (Department of Electrical Engineering, National Tsing Hua University, TW)
- W-P6.5 Kernel-based Pose Invariant Face Recognition
Chao-Kuei Hsieh (National Tsing Hua University, TW); Yung-Chang Chen (National Tsing Hua University, TW)
- W-P6.6 Real-Time Humanoid Avatar For Multimodel Human-Machine Interaction
Yun Fu (University of Illinois at Urbana-Champaign, US); Renxiang Li (Motorola Labs, US); Thomas Huang (University of Illinois at Urbana-Champaign, US); Mike Danielsen (Motorola Labs, US)
- W-P6.7 A Real-time Hand Gesture Recognition Method
Yikai Fang (Institute of Automation, Chinese Academy of Sciences, CN); Kongqiao Wang (Nokia Research Center, CN); Jian Cheng (Chinese Academy of Sciences, CN); Hanqing Lu (the Institute of Automation, Chinese Academy of Sciences, CN)
- W-P6.8 A Body Activity Tracking System Using Wearable Accelerometers
Liang Dong (Institute for Infocomm Research, SG); Jiankang Wu (Institute for Infocomm Research (I2R), SG); Xiang Chen (Institute for Infocomm Research, SG)
- W-P6.9 Speech emotion recognition on an enhanced co-training algorithm
Jia Liu (Zhejiang University, CN); Chun Chen (Zhejiang University, CN); Jiajun Bu (Zhejiang University, CN); Mingyu You (Zhejiang University, CN); Tao Jianhua (Pattern Recognition Laboratory, the Chinese Academy of Sciences, CN)
- W-P6.10 Retrieving and Exploiting Hand's Orientation in Tabletop Interaction
João Carreira (University of Coimbra, PT); Paulo Peixoto (University of Coimbra, PT)
- W-P6.11 Face Recognition for Smart Interactions
Hazim Ekenel (Universität Karlsruhe (TH), DE); Johannes Stallkamp (University of Karlsruhe, DE); Hua Gao (University of Karlsruhe, DE); Mika Fischer (University of Karlsruhe, DE); Rainer Stiefelhagen (Universität Karlsruhe (TH), DE)

15:40-17:40 Poster session II

W-P7 Coding Poster 5: Video Coding (Paper #:14)

Chair: Pascal Frossard, EPFL, Switzerland

- W-P7.1 Multiple Description Video Coding Using Adaptive Temporal Sub-sampling
Huihui Bai (Beijing Jiaotong University, CN); Yao Zhao (Beijing Jiaotong University, CN); Ce Zhu (Nanyang Technological University, SG)
- W-P7.2 Multiple Description Video Coding Using Hierarchical B Pictures
Minglei Liu (Nanyang Technological University, SG); Ce Zhu (Nanyang Technological University, SG)
- W-P7.3 Joint Decoding of Multiple Video Streams
Zhiqin Liang (Hong Kong University of Science and Technology, HK); Zhou Jiantao (Hong Kong University of Science and Technology, CN); Liwei Guo (Hong Kong University of Science and Technology, HK); Mengyao Ma (Hong Kong University of Science and Technology, HK); Oscar Au (HKUST, HK)
- W-P7.4 The Most Efficient Tile Size In Tile-Based Cylinder Panoramic Video Coding And Its Selection Under Restriction Of Bandwidth
Feng Dai (Institute of Computing Technology, Chinese Academy of Sciences, CN); Yanfei Shen (Institute of Computing Technology, Chinese Academy of Sciences, CN); Yong-Dong Zhang (Institute of Computing Technology, Chinese Academy of Sciences, CN); Shou-Xun Lin (Institute of Computing Technology, Chinese Academy of Sciences, CN)
- W-P7.5 Content-based 4D Matrix DCT Coding Algorithm for Stereo Video With Adaptive Windows Disparity Estimation
Xing MA (Jilin University, CN); Hexin CHEN (Jilin University, CN); Yan ZHAO (Jilin University, CN)
- W-P7.6 Adaptive Spatial and Transform Domain FGS Coding
Li Zhang (Chinese Academy of Sciences, CN); Xiangyang Ji (Chinese Academy of Sciences, CN); Wen Gao (Peking University, CN); Debin Zhao (Harbin Institute of Technology, CN)
- W-P7.7 An Adaptive Deblocking Filter for ROI-based Scalable Video Coding
Zhongkang Lu (Institute for Infocomm Research, SG); Jinghong Zheng (Institute for Infocomm Research, SG); Lin Weisi (Institute for Infocomm Research, SG); Susanto Rahardja (Institute for Infocomm Research, SG); Shiqian Wu (Institute for Infocomm Research, SG)
- W-P7.8 Fast Mode Decision for Coarse Granular Scalability Via Switched Candidate Mode Set
He Li (Nanyang Technological University, SG); Zheng Guo Li (Media Division, Institute for Infocomm Research, Heng Mui Keng Terrace, Singapore 119613, SG); Changyun Wen (Nanyang Technological University, SG); Shoulie Xie (Institute for Infocomm Research, SG)
- W-P7.9 Adaptive Selection of Motion Models for panoramic video coding
Jiali Zheng (Institute of Computing Technology, Chinese Academy of Sciences, CN); Shen Yanfei (Chinese Academy of Sciences, CN); Yong-Dong Zhang (Institute of Computing Technology, Chinese Academy of Sciences, CN); Guangnan Ni (Institute of Computing Technology, Chinese Academy of Sciences, CN)
- W-P7.10 A Rate-distortion Based Quantization Level Adjustment Algorithm in Block-based Video Compression
Wei Jiang (Shanghai Jiao Tong Univ., CN); Jun Sun (Shanghai Jiao Tong University, CN); Jia Wang (Shanghai Jiao Tong University, CN); Xiaokang Yang (Shanghai Jiaotong University, CN)
- W-P7.11 Wavelet-based encoding for HD applications
Livio Lima (University of Brescia, IT); Francesca Manerba (University of Brescia, IT); Nicola Adami (University of Brescia, IT); Alberto Signoroni (University of Brescia, IT); Riccardo Leonardi (University of Brescia, IT)
- W-P7.12 Direct Mode Coding for B Pictures Using Virtual Reference Picture
Da Liu (Department of Computer Science, Harbin Institute of Technology, CN); Debin Zhao (Department of Computer Science, Harbin Institute of Technology, CN); Jun Sun (Institute of Digital Media, Peking University, CN); Wen Gao (Institute of Digital Media, Peking University, CN)
- W-P7.13 Video Coding Using 3-D Anisotropic Dual-Tree Wavelet Transform
Jingyu Yang (Tsinghua University, CN); Beibei Wang (Polytechnic University, US); Yao Wang (Polytechnic University, US); Wenli Xu (Tsinghua University, CN)
- W-P7.14 Performance Modeling and Evaluation of Prediction Structures in Multi-view Video Coding
Chao Chen (Tsinghua University, CN); Yebin Liu (Tsinghua University, CN); Qionghai Dai (Tsinghua University, CN); Xiaodong Liu (Tsinghua University, CN)

W-P8 Content Poster 4: Multimedia Analysis (I) (Paper #:14)

Chair: Jean-Marc Odobez, IDIAP, CH

Ja-Ling Wu, National Taiwan University, TW

- W-P8.1 Finding Image Structure by Hierarchical Segmentation
Bo Qiu (Institute for Infocomm Research, SG); Daniel Racocanu (Image Processing, Access & Language (IPAL), SG)
- W-P8.2 A Cognitive and Unsupervised MAP Adaptation approach to the Recognition of the Focus of Attention from Head Pose
Jean-Marc Odobez (IDIAP, CH); Sileye Ba (IDIAP Research Institute, CH)
- W-P8.3 Movie Analysis Based on Roles' Social Network
Chung-Yi Weng (National Taiwan University, TW); Wei-Ta Chu (National Taiwan University, TW); Ja-Ling Wu (National Taiwan University, TW)
- W-P8.4 Estimating Human Age by Manifold Analysis of Face Pictures and Regression on Aging Features
Yun Fu (University of Illinois at Urbana-Champaign, US); Ye Xu (University of Illinois at Urbana-Champaign, US); Thomas Huang (University of Illinois at Urbana-Champaign, US)
- W-P8.5 Robust Text Stroke Extraction From Video
Rui Ma (Tsinghua University, CN); Wei Hu (Intel China Research Center, Intel Corporation, CN); Qiao Huang (Department of Automation, Tsinghua University, CN); Jiaxin Wang (Tsinghua University, CN); Tao Wang (Intel China Research Center, CN); Yimin Zhang (Intel China Research Center, CA)
- W-P8.6 Pitch-By-Pitch Extraction from Single View Baseball Video Sequences
Hsuan-Sheng Chen (National Chiao-Tung University, TW); Hua-Tsung Chen (National Chiao-Tung University, TW); Wen-Jiin Tsai (National Chiao-Tung University, TW); Suh-Yin Lee (National Chiao Tung University, Taiwan, R. O. C., TW); Jen-Yu Yu (Industrial Technology Research Institute, TW)
- W-P8.7 Low Memory Cost Block-Based Belief Propagation for Stereo Correspondence
Yu-Cheng Tseng (National Chiao Tung University, TW); Nelson Chang (National Chiao Tung University, TW); Tian-Sheuan Chang (Chiao-Tung University, Taiwan, TW)
- W-P8.8 Two-Stage Road Sign Detection and Recognition
Wen-Jia Kuo (Yuan Ze University, TW); Chien-Chung Lin (Yuan Ze University, TW)
- W-P8.9 Lip Localization On Multi-View Faces In Video
Rui Ma (Tsinghua University, CN); Yi Wu (Institute of Automation, Chinese Academy of Science, CN); Wei Hu (Intel China Research Center, Intel Corporation, CN); Jiaxin Wang (Tsinghua University, CN); Tao Wang (Intel China Research Center, CN); Yimin Zhang (Intel China Research Center, CA); Hanqing Lu (the Institute of Automation, Chinese Academy of Sciences, CN)
- W-P8.10 A Fast Approach for Natural Image Matting Using Structure Information
Qianhui Ning (Graduate School of Chinese Academy of Sciences, CN); Weiqiang Wang (Graduate School of Chinese Academy of Sciences, CN); Caifeng Zhu (Graduate School of Chinese Academy of Sciences, CN); Laiyun Qing (ICT-ISVISION Joint R&D Laboratory for Face Recognition, CAS, CN); Qingming Huang (Graduate School of Chinese Academy of Sciences, CN)
- W-P8.11 A Semantic Content Analysis Model For Sports Video Based On Perception Concepts And Finite State Machines
Liang Bai (Dublin City University, CN); Songyang Lao (National University of Defense Technology, CN); Gareth Jones (Centre for Digital Video Processing, Dublin City University, IE); Alan Smeaton (Dublin City University, IE)
- W-P8.12 An Invariant Appearance Model for Gait Recognition
Shi Chen (Xidian University, CN); Youxing Gao (Xidian University, CN)
- W-P8.13 Hidden Maximum Entropy Approach for Visual Concept Modeling
Sheng Gao (Institute for Infocomm Research, SG); Joo-Hwee Lim (Institute for Infocomm Research, SG); Qibin Sun (I2R, SG)
- W-P8.14 Ground-Truthed Video Generation from Symbolic Information
Andrew Lookingbill (Stanford University, US); Emilio Antunez (Stanford University, US); Berna Erol (Ricoh California Research Center, US); Jonathan Hull (Ricoh Innovations, Inc., US); Qifa Ke (Ricoh Innovations, Inc., US)

W-P9 S&A Poster 6: Multimedia Intelligence and Agents (Paper#:3)

Chair: Mark Liao, Academia Sinica, Taiwan

- W-P9.1 Detecting unsafe driving patterns using discriminative learning
Yue Zhou (University of Illinois at Urbana-Champaign, US); Wei Xu (NEC Labs America, US); Huazhong Ning (University of Illinois - UIUC, US); Yihong Gong (NEC Labs American, US); Thomas Huang (University of Illinois at Urbana-Champaign, US)
- W-P9.2 Off-line Signature Verification Based on Fuzzy Modeling with the Optimal Number of Rules
Wei Tian (Shandong University, CN); Yizheng Qiao (Shandong University, CN); Zhiqiang Ma (Shandong University, CN)
- W-P9.3 Adaptive Out-of-Core Simplification of Large Point Clouds
Xiaohui Du (Beijing University of Technology, CN); Baocai Yin (Beijing University of Technology, CN); Dehui Kong (Beijing University of Technology, CN)

W-P10 S&A Poster 7: Multimedia Tools, Applications, and Hypermedia Technologies (II) (Paper#:7)
Chair: Cai Jianfei, Nanyang Technological University, Singapore

- W-P10.1 A Framework for Modular Signal Processing Systems with High-Performance Requirements
Benedikt Hörnler (Technische Universität München, DE); Lukas Diduch (National Institute of Standards and Technology, US); Gerhard Rigoll (Technische Universität München, DE)
- W-P10.2 SIMACOP: Small Units Management C4ISR System
Carlos Palau (Universidad Politecnica Valencia, ES); Manuel Esteve (Universidad Politecnica Valencia, ES); Israel Pérez (Universidad Politécnica de Valencia, ES); Luis Hernández Blanco (Universidad Politecnica de Valencia, ES); Federico Carvajal (UPV, ES)
- W-P10.3 POEMS: A Paper Based Meeting Service Management Tool
Chang Hu (University of Maryland, US); Qiong Liu (Fuji-Xerox Palo Alto Laboratory, US); Xuemin Liu (Fuji Xerox Palo Alto Laboratory, US); Chunyuan Liao (University of Maryland, US); Paul McEvoy (Fuji Xerox Palo Alto Laboratory, US)
- W-P10.4 A Framework for Provisioning Overlay Network Based Multimedia Distribution Services
Dewan Ahmed (University of Ottawa, CA); Shervin Shirmohammadi (University of Ottawa, CA)
- W-P10.5 A portable scene-aware view management system for video-conferencing
Muyuan Wang (University of Illinois at Urbana-Champaign, US); Klara Nahrstedt (University of Illinois at Urbana-Champaign, US); Miles Johnson (University of Illinois at Urbana-Champaign, US)
- W-P10.6 Multi-Shot Framework with Preloading Architecture for Low-Latency MHP Application Delivery
Tien-Ying Kuo (National Taipei University of Technology, TW); Li-Hsien Hsiao (National Taipei University of Technology, TW); Po-Yun Chin (National Taipei University of Technology, TW)
- W-P10.7 MobileMaps@SG – Mappedia Version 1.0
Liang-Tien Chia (Nanyang Technological University, SG); Daniel Dengyang Gan (Nanyang Technological University, SG)

W-P11 S&A Poster 8: Audio, Image/Video Processing for Multimedia Applications (II) (Paper #:5)
Chair: Ming Yang, Jacksonville State University, US

- W-P11.1 Scalable Multi-standard LSI Texture Encoder for MPEG and VC-1 Video Compression
Norman Nolte (Leibniz University of Hannover, DE); Winfried Gehrke (NXP Semiconductors, DE); Frank Wiczinowski (NXP Semiconductors, DE); Peter Pirsch (Institut fuer Mikroelektronische Systeme, DE)
- W-P11.2 Predictive Early Object Shedding in Media Processing Workflows
Lina Peng (Arizona State University, US); K. Selcuk Candan (Arizona State University, US)
- W-P11.3 Design of IP Media Accelerator
Qing Wang (IBM China Research Lab, CN); Wenbo Shen (IBM China Research Lab, CN); Yu Li (IBM China Research Lab, CN); Zhen Bo Zhu (IBM China Research Laboratory, CN)
- W-P11.4 Viewpoint-Dependent Quality Control On Microfacet Billboarding Model For Sport Video
Hitoshi Furuya (University of Tsukuba, JP); Itaru Kitahara (University of Tsukuba, JP); Yoshinari Kameda (University of Tsukuba, JP); Yuichi Ohta (University of Tsukuba, JP)
- W-P11.5 New Equalizing Scheme of Active Noise Equalization System in Automobile Cabin
Liang Wang (Nanyang Technological University, SG); Woon Seng Gan (Nanyang Technological University, SG); Yong Kim Chong (Nanyang Technological University, SG)

W-P12 S&A Poster 9: Audio, Image/Video Coding and Transmission for Multimedia Systems II (Paper#:4)
Chair: Murat Tekalp, Koç University, Turkey

- W-P12.1 Realistic Facial Animation Synthesis And Transfer Based On Flexible Expression Ratio Image
Pith Xie (Institute of Computing Technology, Chinese Academy of Sciences, CN); Yiqiang Chen (Institute of Computer Technology, Chinese Academy of Sciences, CN); Junfa Liu (Institute of Computing Technology, Chinese Academy of Sciences, CN)
- W-P12.2 A Low Latency Memory Controller for Video Coding Systems
Chih-Da Chien (National Chung Cheng University, TW); Chih-Wei Wang (National Chung Cheng University, TW); Chiun-Chau Lin (Industrial Technology Research Institute, TW); Tien-Wei Hsieh (Industrial Technology Research Institute, TW); Yuan-Hwa Chu (Industrial Technology Research Institute, TW); Jiun-In Guo (National Chung Cheng University, TW)
- W-P12.3 QoS Guaranteed Scalable Video Transmission over MIMO Systems with Time-Varying Channel Capacity
Daewon Song (Florida Institute of Technology, US); Chang Wen Chen (Florida Institute of Technology, US)
- W-P12.4 Towards Enhanced Resource Sharing in Video Streaming with Generalized Access Patterns
Bashar Qudah (Wayne State University, US); Nabil Sarhan (Wayne State University, US)

W-P13 Assurance Poster 2: Digital Watermarking II (Paper #:10)

Chair: Ching-Yung Lin, IBM T. J. Watson, US

- W-P13.1 JPEG Based Conditional Entropy Coding for Correlated Steganography
Lei Zheng (University College London, UK), Ingemar Cox (University College London, UK)
- W-P13.2 Spectrum Shaped Dither Modulation Watermarking for Correlated Host Signal
Bin Yan (Harbin Institute of Technology, China); Zhe-Ming Lu (Harbin Institute of Technology, China); Sheng-He Sun (Harbin Institute of Technology, China)
- W-P13.3 3d Animation Watermarking Scheme Using Orientation Interpolator
Suk-Hwan Lee (Tongmyong University, Korea); Seong-Geun Kwon (Samsung Electronics Co., Korea); Bong-Ju Jang (Pukyong National University, Korea); Ji-Hoon Kim (Pukyong National University, Korea); Ki-Ryong Kwon (Pukyong National University, Korea); Dong-kyue Kim (University of Hanyang, Korea)
- W-P13.4 Information Hiding based on Intra Prediction Modes for H.264/AVC
Yang Hu (Tianjin University, China); Chuntian Zhang (Tianjin Univ., China); Yuting Su (Tianjin University, Taiwan)
- W-P13.5 Hierarchical Blind Watermarking of 3D Triangular Meshes
Kai Wang (LIRIS, UMR 5205 CNRS, INSA-Lyon, France); Guillaume Lavoué (LIRIS UMR 5205, Insa-Lyon, France); Florence Denis (LIRIS UMR 5205 CNRS, Université Lyon 1, France); Atilla Baskurt (INSA de Lyon, France)
- W-P13.6 High Capacity Data Hiding for Binary Images in Morphological Wavelet Transform Domain
Huijuan Yang (Nanyang Technological University, Singapore); Alex Kot (Nanyang Technological University, Singapore); Susanto Rahardja (Institute for Infocomm Research, Singapore); Xudong Jiang (Nanyang Technological University, Singapore)
- W-P13.7 2.5-Domain Tri-watermarking Algorithm For DCT-based Video Protection
Yi-Chong Zeng (National Taiwan University, Taiwan); Soo-Chang Pei (National Taiwan University, Taiwan)
- W-P13.8 A Maximum Likelihood Watermark Decoding Scheme
Wenming Lu (University of Wollongong, Australia)
- W-P13.9 Semi-Fragile Watermarking Based on SVM for Image Authentication
Chunhua Li (HuaZhong University of Sci. and Tech., China); Zhengding Lu (HuaZhong University of Sci. and Tech., China); Hefei Ling (Huazhong University of Science & Technology, China)
- W-P13.10 Watermarking for Progressive Human Motion Animation
Shiyu Li (Faculty of Environmental Engineering, The University of Kitakyushu, Japan, Japan); Masahiro Okuda (Faculty of Environmental Engineering, The University of Kitakyushu, Japan, Japan)

W-P14 SS-04/07/08 Poster (Paper #:4)

Chair: Shipeng Li, Microsoft Research Asia, China
Fatih Porikli, MERL, US

- W-P14.1 Parallel Approximate Matrix Factorization for Kernel Methods
Ed Chang (Google Inc., CN)
- W-P14.2 Enhanced Multichannel Audio Resynthesis through Residual Processing and Features Alignment
Demetrios Cantzos (University of Southern California, US); Athanasios Mouchtaris (Foundation for Research and Technology-Hellas, GR); Chris Kyriakakis (University of Southern California, US)
- W-P14.3 3D Haar-Like Features for Pedestrian Detection
Xinyi Cui (Harbin Institute of Technology, CN); Yazhou Liu (Harbin Institute of Technology, CN); Shiguang Shan (ICT-ISVISION Joint R&D Laboratory for Face Recognition, CAS, CN); Xilin Chen (ICT-ISVISION Joint R&D Laboratory for Face Recognition, CAS, CN); Wen Gao (Peking University, CN)
- W-P14.4 3D Camera-Shake Measurement and Analysis
Kazuki Nishi (The University of Electro-Communications, JP)

W-P15 Coding Poster 6: Multimedia Signal Processing (Paper #:10)

Chair: Xiaolin Wu, McMaster University, Canada

- W-P15.1 MP3 Audio Quality for Single and Multiple Encoding
Giancarlo Vercellesi (University of Milan, IT); Andrea Vitali (STM, IT); Martino Zerbini (ST Microelectronics, IT)
- W-P15.2 Local Objective Metrics of Blocking Artifacts Visibility for Adaptive Repair of Compressed Video Signals
Ihor Kirenko (Philips Research Laboratories, NL); Ling Shao (Philips Research Laboratories, NL)

- W-P15.3 High Speed AAC Bit Rate Reduction on the Compressed Domain
Koichi Takagi (KDDI R&D Laboratories Inc., JP); Satoshi Miyaji (KDDI R&D Laboratories Inc., JP); Yasuhiro Takishima (KDDI R&D Laboratories Inc., JP)
- W-P15.4 Enhanced MVDR Beamforming for Arrays of Directional Microphones
Demba Ba (Massachusetts Institute of Technology, US); Dinei Florencio (Microsoft Research, US); Cha Zhang (Microsoft Research, US)
- W-P15.5 ICP with Bounded Scale for Registration of m-D Point Sets
Shaoyi Du (Xi'an Jiaotong University, CN); Nanning Zheng (Xi'an Jiaotong University, CN); Shihui Ying (Xi'an Jiaotong University, CN); Jishang Wei (Xi'an Jiaotong University, CN)
- W-P15.6 Generating High-Resolution Textures For 3D Virtual Environments Using View-Independent Texture Mapping
Charalambos Poullis (University of Southern California, US); Suyu You (University of Southern California, US); Ulrich Neumann (USC, US)
- W-P15.7 Hole filling on three-dimensional surface texture
Junyu Dong (Ocean University of China, CN); Sha Ma (Ocean University of China, CN)
- W-P15.8 View-Based 3D Model Transmission via Mesh Segmentation
Wei Guan (Nanyang Technological University, SG); Jianfei Cai (Nanyang Technological University, SG); Jianmin Zheng (Nanyang Technological University, SG); Chang Wen Chen (Florida Institute of Technology, US)
- W-P15.9 An Energy-Minimizing Mesh Parameterization
Yong Li (Beijing University of Technology, CN); Bo Liu (Beijing University of Technology, CN); Hongbin Zhang (Beijing University of Technology, CN)
- W-P15.10 An Image Binarization Method Based on HVS
Meisen Pan (Hunan University of Arts and Science, CN); Fen Zhang (Computer Science and Technology Department, Hunan University of Arts and Science, CN); Hefei Ling (Huazhong University of Science & Technology, CN)

Night Banquet

Thursday, July 5, 2007

- 08:30-09:40 Key Note 4
Large-Scale Internet Search
Tao Yang, UCSB, and Chief Scientist and Senior Vice President at Ask.com, US
- 09:40-10:10 Coffee Break
- 10:10-11:40 Panel 2
Human Computer Interfaces in Multimedia Communication
- 13:30-15:10 Oral (30 papers in 6 rooms)
Th-L1 SS-05 Vision-based Compression
Chair: Feng Wu, Microsoft Research Asia
 Xiaoyan Sun, Microsoft Research Asia
 Yi Ma, University of Illinois at Urbana-Champaign
- Th-L1.1 Edge-based inpainting and texture synthesis for image compression
 Dong Liu (University of Science and Technology of China, CN); Xiaoyan Sun (Microsoft Research Asia, CN); Feng Wu (Microsoft Research Asia, CN)
- Th-L1.2 Generic and Robust Video Coding with Texture Analysis and Synthesis
 Patrick Ndjiki-Nya (Fraunhofer Heinrich-Hertz-Institut (HHI), DE)
- Th-L1.3 A New Image Compression Method Based on Primal Sketch Model
 Ruxin Gao (Huazhong University of Science & Technology (HUST), CN); Zheng Li (Huazhong University of Science & Technology (HUST), CN); Cheng-en Guo (Lotus Hill Institute for Computer Vision and Information Science, CN)
- Th-L1.4 Content-based quality evaluation on frame-dropped and blurred video
 Zhongkang Lu (Institute for Infocomm Research, SG); Weisi Lin (Nanyang Technological University, SG); Ong Ee Ping (Institute for Infocomm Research, SG); Susu Yao (Institute for Infocomm Research,

SG); Choong Seng Boon (NTT DoCoMo, Inc., JP); Sadaatsu KATO (Research Laboratories, NTT DoCoMo, Inc., JP)

- Th-L1.5 Edge-guided Perceptual Image Coding via Adaptive Interpolation
Takao Nakamura (NTT, JP); Susumu Yamamoto (NTT West Corporation, JP); Ryo Kitahara (NTT, JP); Atsushi Katayama (NTT, JP); Takayuki Yasuno (NTT Corporation, JP); Noboru Sonehara (National Institute of Informatics, JP)

Th-L2 S&A Track 4: Audio, Image/Video Processing for Multimedia Applications
Chair: Susie Wee, HP, US

- Th-L2.1 Generating Video Sequence from Photo Image for Mobile Screens by Content Analysis
Shuqiang Jiang (Institute of Computing Technology, Chinese Academy of Sciences, Beijing 100080, CN); Huiying Liu (Institute of Computing Technology, CAS, CN); Zhao Zhao (Institute of Computing Technology, CAS, CN); Qingming Huang (Graduate School of China)
- Th-L2.2 Video Collage: A Novel Presentation of Video Sequence
Tang Wang (University of Science and Technology of China, CN); Tao Mei (Microsoft Research Asia, CN); Xian-Sheng Hua (Microsoft Research Asia, CN); Xue-Liang Liu (University of Science and Technology of China, CN); Heqin Zhou (University of Science and Te
- Th-L2.3 Ghost Shadow Removal in Multi-Layered Video Inpainting
Timothy Shih (Tamkang University, TW); Nick Tang (Tamkang University, TW); Jenq-Neng Hwang (University of Washington, US)
- Th-L2.4 MUSEMBLE: Music Retrieval System Based on Learning Environment
Seungmin Rho (University of Ajou, KR); Byeong-jun Han (Korea University, KR); EenJun Hwang (Korea University, KR); Minkoo Kim (Ajou University, KR)
- Th-L2.5 An Implementation of Web Based Query by Humming System
Lujia Chen (Institute of Automation Chinese Academy of Sciences, CN); Hu Bao-Gang (Institute of Automation Chinese Academy of Sciences, CN)

Th-L3 Content Track 4: Image/Video Analysis and Retrieval
Chair: Apostol Natsev, IBM T J Watson, US
Xian-Sheng Hua, Microsoft Research Asia, CN

- Th-L3.1 A Novel Multiple Instance Learning Approach For Image Retrieval Based On Adaboost Feature Selection
Xun Yuan (University of Sci&Tech of China, CN); Xian-Sheng Hua (Microsoft Research Asia, CN); Meng Wang (University of Sci&Tech of China, CN); Guo-Jun Qi (University of Science and Technology of China, CN); Xiuqing Wu (University of Science and Technology of China, CN)
- Th-L3.2 A Fast, Comprehensive Shot Boundary Determination System
Zhu Liu (AT & T Laboratories, US); David Gibbon (AT&T Labs - Research, US); Eric Zavesky (Columbia University, US); Behzad Shahraray (AT&T Labs - Research, US); Patrick Haffner (AT&T, US)
- Th-L3.3 Undirected Graphical Models for Video Analysis and Classification
Yan Liu (IBM T. J. Watson Research Center, US); Jun Yang (Carnegie Mellon University, US); Alexander Hauptmann (Carnegie Mellon University, US)
- Th-L3.4 Dynamic Multimodal Fusion in Video Search
Lexing Xie (IBM Research, US); Apostol Natsev (IBM T. J. Watson Research Center, US); Jelena Tesic (IBM Watson Research Center, US)
- Th-L3.5 A Robust Corner Matching Technique
Mohammad Awrangjeb (Monash University, AU); Guojun Lu (Monash University, AU)

Th-L4 S&A Track 5: Multimedia Applications: Detection, Tracking, and Recognition (II)
Chair: Mohan Kankanhalli, NUS, Singapore
Homer Chen, National Taiwan University, Taiwan

- Th-L4.1 Geodesic Distances for 3D-3D and 2D-3D Face Recognition
Francisco Jose Silva Mata (Centro de Aplicaciones de Tecnologias de Avanzada, IT); Stefano Berretti (University of Florence, IT); Alberto Del Bimbo (University of Firenze, IT); Pietro Pala (University of Firenze, IT)
- Th-L4.2 Tracking Multiple Objects Using Probability Hypothesis Density Filter and Color Measurements
Nam-Trung Pham (I2R, SG); Weimin Huang (Institute for Infocomm Research, SG); Sim Heng Ong (National University of Singapore, SG)
- Th-L4.3 Effective Extraction of Gabor Features for Adaptive Mammogram Retrieval
Chia-Hung Wei (University of Warwick, UK); Yue Li (University of Warwick, UK); Chang-Tsun Li (University of Warwick, UK)

- Th-L4.4 Special Effects in Film Making With Object Based Transformations
Chun-hao Wang (Ryerson University, CA); Xiaoming Fan (Ryerson University, CA); Ming Du (University of Maryland, US); Bruce Elder (Ryerson University, CA); Xiaou Tang (Microsoft Research Asia, CN); Ling Guan (Ryerson University, CA)
- Th-L4.5 An Effective Local Invariant Descriptor Combining Luminance And Color Information
Dong Zhang (Graduate School of Chinese Academy of Sciences, CN); Weiqiang Wang (Graduate School of Chinese Academy of Sciences, CN); Wen Gao (Peking University, CN)

Th-L5 Assurance Track 3: Secure Multimedia Distribution I

Chair: Oscar Au, HKUST, Hong Kong

- Th-L5.1 A Novel Data Dependent Multimedia Encryption Algorithm Secure Against Chosen-Plaintext Attacks
Esteban Rodriguez-Marek (Eastern Washington University, United States); Min-Sung Koh (Eastern Washington University, United States); Claudio Talarico (Eastern Washington University, United States)
- Th-L5.2 Differentiated Service Protection of Multimedia Transmission via Detection of Traffic Anomalies
Hongli Luo (Indiana University - Purdue University Fort Wayne, United States); Mei-Ling Shyu (University of Miami, United States)
- Th-L5.3 An Image Secret Sharing Scheme with the Capability of Previvewing the Secret Image
Ching-Nung Yang (National Dong Hwa University, Taiwan)
- Th-L5.4 Joint Multimedia Fingerprinting and Encryption: Security Issues and Some Solutions
Chun-Shien Lu (Institute of Information Science, Academia Sinica, Taiwan)
- Th-L5.5 Joint Fingerprint Embedding and Decryption for Video Distribution
Shiguo Lian (France Telecom R&D Beijing, China); Zhongxuan Liu (France Telecom R&D Beijing, China); Zhen Ren (France Telecom, China); Haila Wang (France Telecom, China)

Th-L6 Content Track 5: Sports/News Video Processing

Chair: Shin'ichi Satoh, National Institute of Informatics, JP

Sharad Rao, UIUC, US

- Th-L6.1 Image-based Quizzes from News Video Archives
Masanori Sano (NHK Science and Technical Research Laboratories, JP); Nobuyuki YAGI (NHK Science and Technical Research Laboratories, JP); Jean Martinet (National Institute of Informatics, JP); Norio Katayama (National Institute of Informatics, JP); Shin'ichi Satoh (National Institute of Informatics, JP)
- Th-L6.2 Trajectory-Based Ball Detection and Tracking in Broadcast Soccer Video with the Aid of Camera Motion Recovery
Xinguo Yu (Institute for Infocomm Research, SG); Xiaoying Tu (Nanyang Technological University, SG); Ee-Luang Ang (Nanyang Technological University, SG)
- Th-L6.3 Role Recognition in Broadcast News Using Bernoulli Distributions
Alessandro Vinciarelli (IDIAP Research Institute, CH)
- Th-L6.4 Enhanced Shot Change Detection using Motion Features for Soccer Video Analysis
Yichuan Hu (Tsinghua University, CN); Bo Han (Tsinghua University, CN); Guijin Wang (Tsinghua University, CN); Xinggang Lin (Tsinghua University, CN)
- Th-L6.5 Finding Multi-Modal Person Profiles from Broadcast News Video
Charlie Dagli (University of Illinois at Urbana-Champaign, US); Sharad Rao (University of Illinois at Urbana-Champaign, US); Thomas Huang (University of Illinois at Urbana-Champaign, US)

15:10-15:40 Coffee Break

15:40-17:40 Oral (36 papers in 6 rooms)

Th-L7 Networking Track 2: Video Streaming

Chair: Eckhard Steinbach, TUM, Germany

- Th-L7.1 Time-aware opportunistic relay for video streaming over WLANs
Mei-Hsuan Lu (Carnegie Mellon University, US); Peter Steenkiste (Carnegie Mellon University, US); Tsuhan Chen (Carnegie Mellon University, US)
- Th-L7.2 A Minimized Latency Broadcast in Multi-Rate Wireless Mesh Networks: Distributed Formulation and Rate First Algorithm

- Tai Wang (Huazhong University of Science and Technology, CN); Bo Li (Hong Kong University of Science and Technology, CN); Yang Zongkai (Huazhong University of Science and Technology, CN); Wenqing Cheng (Huazhong University of Science and Technology, CN)
- Th-L7.3 H.264 Video over 802.11a WLANs with Multipath Fading: Parameter Interplay and Delivered Quality
Jing Hu (University of California, Santa Barbara, US); Sayantan Choudhury (University of California, Santa Barbara, US); Jerry Gibson (University of California, Santa Barbara, US)
- Th-L7.4 RD-Optimized Rate Shaping for Multiple Scalable Video Streams
Rajyalakshmi Mahalingam (Munich University of Technology, DE); Wei Tu (Munich University of Technology, DE); Eckehard Steinbach (Munich University of Technology, DE)
- Th-L7.5 Optimal Frame Selection with Adaptive Payout for Delivering Stored Video under Constrained Resources
Dayong Tao (Nanyang Technological University, SG); Hai Hoang (Nanyang Technological University, SG); Jianfei Cai (Nanyang Technological University, SG)
- Th-L7.6 Whole Frame Loss Recovery For H.264/AVC In Wireless Low-bitrate Video Transmission
Yi Liu (Zhejiang University, CN); Jiajun Bu (Zhejiang University, CN); Chun Chen (Zhejiang University, CN); Xiaoyu Deng (Zhejiang University, CN); Chaoqun Hong (Zhejiang University, CN)

Th-L8 Content Track 6: Visual Tracking/Surveillance

Chair: Mubarak Shah, Univ. of Central Florida, US

Ying Wu, Northwestern Univ., US

- Th-L8.1 Automatically Tuning Background Subtraction Parameters Using Particle Swarm Optimization
Brandyn White (University of Central Florida, US); Mubarak Shah (Univ. of Central Florida, US)
- Th-L8.2 Probabilistic Visual Tracking via Robust Template Matching and Incremental Subspace Update
Xue Mei (University of Maryland, College Park, US); Shaohua Zhou (Siemens Corporate Research, US); Fatih Porikli (Mitsubishi Electric Research Laboratories, US)
- Th-L8.3 Foreground Segmentation in Surveillance Scenes Containing a Door
Andrew Miller (University of Central Florida, US); Mubarak Shah (Univ. of Central Florida, US)
- Th-L8.4 Adaptive Multi-cue Kernel Tracking
Yongzhong Wang (Northwestern Polytechnical University, CN); Yan Liang (Northwestern Polytechnical University, CN); Chunhui Zhao (Northwestern Polytechnical University, CN); Quan Pan (Northwestern Polytechnical University, CN)
- Th-L8.5 An Information Theoretic Model of Spatiotemporal Visual Saliency
Guoping Qiu (University of Nottingham, UK); Xiaodong Gu (Thomson, Inc, CN); Zhibo Chen (Thomson Corporate Research, Beijing, CN); Quqing Chen (Thomson Corporate Research, Beijing, CN); Charles Wang (Thomson Inc., US)

Multimedia Interaction Human Machine Interface

- Th-L8.6 Query Driven Localized Linear Discriminant Models for Head Pose Estimation
Zhu Li (Motorola Labs, US); Yun Fu (University of Illinois at Urbana-Champaign, US); Junsong Yuan (Northwestern University, US); Thomas Huang (University of Illinois at Urbana-Champaign, US); Ying Wu (Northwestern University, US)

Th-L9 SS-11 Multimedia Adaptive Computer Based Testing

Chair: Anup Basu, University of Alberta

Gautam Rao, Castle Rock Research Corporation

- Th-L9.1 Multimedia Item Type Design for Assessing Human Cognitive Skills
Irene Cheng (University of Alberta, CA); Walter Bischof (University of Alberta, CA)
- Th-L9.2 An Interactive 3D Environment for Computer Based Education
Gang Wu (University of Alberta, CA); Irene Cheng (University of Alberta, CA); Anup Basu (University of Alberta, CA)
- Th-L9.3 Multimedia Games for Learning and Testing Physics
Saul Rodriguez (University of Alberta, CA); Irene Cheng (University of Alberta, CA); Anup Basu (University of Alberta, CA)
- Th-L9.4 An Effective Multimedia Item Shell Design for Individualized Education
Irene Cheng (University of Alberta, CA); Anup Basu (University of Alberta, CA)
- Th-L9.5 Adaptive Assessment in Web-based Learning
Dunwei (Grant) Wen (Athabasca University, CA); Sabine Graf (Vienna University of Technology, AT); Chung Lan (Nanya Institute of Technology, TW); Terry Anderson (Athabasca University, CA); Dr Kinshuk (Athabasca University, CA); Ken Dickson (Athabasca University, CA)
- Th-L9.6 Multimedia Adaptive Computer based Testing: An Overview

Anup Basu (University of Alberta, CA); Irene Cheng (University of Alberta, CA); Mun Prasad (Castle Rock Research Corp., CA); Gautam Rao (Castle Rock Research Corporation, CA)

Th-L10 SS-04 Multicore-Enabled Multimedia Applications and Standards

Chair: Yen-Kuang Chen, Intel Corporation
Lurng-Kuo Liu, IBM T.J. Watson Research Center

Th-L10.1 Optimization and Parallelization on a multimedia application

Wenlong Li (Intel China Research Center, CN); Xiaofeng Tong (Intel China Research center, CN)

Th-L10.2 A Parallel Algorithm for H.264/AVC Deblocking Filter Based on Limited Error Propagation Effect

Shu-Sian Yang (National Taiwan University, TW); Sung-Wen Wang (National Taiwan University, TW); Ja-Ling Wu (National Taiwan University, TW)

Th-L10.3 Computer Vision Workloads on Multi-Core Processors: Articulated Body Tracking

Trista Chen (FX Palo Alto Laboratory, US); Dmitry Budnikov (Intel, RU); Chris Hughes (Intel, US); Yen-Kuang Chen (Intel Corporation, US)

Th-L10.4 Digital Media Indexing on the Cell Processor

Lurng-Kuo Liu (IBM T.J. Watson Research Center, US); Qiang Liu (IBM China Research Lab, CN); Apostol Natsev (IBM T. J. Watson Research Center, US); Kenneth A. Ross (IBM T. J. Watson Research Center, US); John Smith (IBM T.J. Watson Research Center, US); Ana Lucia Varbanescu (Delft University of Technology, NL)

Th-L10.5 Heterogeneous MPSoC Architectures for Embedded Computer Vision

Jason Schlessman (Princeton University, US); Mark Lodato (Verificon Corporation, US)

Th-L10.6 Efficient Parallelization of H.264 Decoding with Intra-frame Scheduling

Jike Chong (University of California, Berkeley, US); Nadathur Satish (University of California, Berkeley, US); Bryan Catanzaro (University of California, Berkeley, US); Kurt Keutzer (UC, Berkeley, US)

Th-L11 SS-07 Audio Beyond Stereo: Current Trends in Spatial and Multi-Channel Audio

Chair: Corey Cheng, Dolby Laboratories
Rongshan Yu, Dolby Laboratories

Th-L11.1 Analysis and synthesis of binaural parameters for efficient 3D audio rendering in MPEG Surround

Dirk Breebaart (Philips Research Labs Eindhoven, NL)

Th-L11.2 Robust 3-D Crosstalk Canceller Design

Chun-Rong Huang (National Chiao Tung University, TW); Shih-Fu Hsieh (National Chiao Tung University, TW)

Th-L11.3 Spatial cue based sound scene control for MPEG Surround

Seungkwon Beack (Electronics and Telecommunications Research Institute, KR)

Th-L11.4 Multichannel Audio in Electroacoustic Music: An Aesthetic and Technical Research Agenda

Colby Leider (University of Miami, US)

Th-L11.5 New Concepts in Parametric Coding of Spatial Audio: From SAC to SAOC

Juergen Herre (Fraunhofer IIS, DE); Sascha Disch (Fraunhofer IIS, DE)

Th-L11.6 Towards a Model of Perceived Quality of Blind Audio Source Separation

Bryan Pardo (Northwestern University, US); Brendan Fox (Northwestern University, US)

Th-L12 Coding Track 6: VLSI

Chair: Peter Pirsch, Leibniz Universität Hannover, Germany

Th-L12.1 VLSI Oriented Fast Multiple Reference Frame Motion Estimation Algorithm for H.264/AVC

Zhenyu Liu (Waseda University, JP); Lingfeng Li (Waseda University, JP); Song Yang (Waseda University, JP); Takeshi Ikenaga (Waseda University, JP); Satoshi Goto (Waseda University, JP)

Th-L12.2 A Low Power, Fully Pipelined JPEG-LS Encoder for Lossless Image Compression

Xiaowen Li (Tsinghua University, CN); Xinkai Chen (Tsinghua University, CN); Xiang Xie (Department of Electronic Engineering, Tsinghua University, Beijing, P. R. China, CN); Guolin Li (Tsinghua University, CN); Li Zhang (, CN); Chun Zhang (Tsinghua University, CN); Zhifeng Wang (Tsinghua University, CN)

Th-L12.3 A Hybrid CAVLD Architecture Design with Low Complexity and Low Power Considerations

Te-Lung Fang (National Central University, TW)

Th-L12.4 A Novel Design for Computation of All Transforms in H.264/AVC Decoders

Yi-Chih Chao (National Cheng Kung University, TW); Hui-Hsien Tsai (National Cheng Kung University, TW); Yu-Hsiu Lin (National Cheng Kung University, TW); Jar-Ferr Yang (National Cheng Kung University, TW); Bin-Da Liu (National Cheng Kung University, TW)

Th-L12.5 High Speed H.264 High Profile Deblocking Using Statistical Analysis and Logic Optimization

Jian Lou (University of Washington, US); Ashish Jagmohan (IBM T. J. Watson, US); Da-ke He (IBM T. J. Watson Research Center, US); Ligang Lu (IBM T. J. Watson Research Center, US); Ming-Ting Sun (University of Washington, US)

Th-L12.6 Modelling Energy Consumption of an ASIC MPEG-4 Simple Profile Encoder

Tong Gan (IMEC, BE); Kristof Denolf (IMEC, BE); Gauthier Lafruit (Multimedia Group, IMEC, BE); Iole Moccagatta (IMEC, BE); Antoine Dejonghe (IMEC, BE); Gregory Lenoir (IMEC, BE)

13:30-15:10 Poster session I

Th-P1 Coding Poster 7: Implementation (Paper #:15)

Chair: Liang-Gee Chen, National Taiwan University, Taiwan

Th-P1.1 A Fast Transform Domain Based Algorithm for H.264/AVC Intra Prediction

Zhengning Wang (Southwest Jiaotong University, CN); Qiang Peng (Southwest Jiaotong University, CN); Jun Yang (Southwest Jiaotong University, CN); Zheng Ma (Southwest Jiaotong University, CN); Changqian Zhu (Southwest Jiaotong University, CN)

Th-P1.2 H.264 Intra Prediction Architecture Optimization

ShaoBo Wang (Beihang University, CN); Xiaolin Zhang (Beihang University, CN); Yuan Yao (Beihang University, CN); Zhe Wang (Beihang University, CN)

Th-P1.3 Bit Rate Estimation for cost function of 4x4 Intra Mode Decision of H.264/AVC

Mohammed Golam Sarwer (City University of Hong Kong, HK); Lai Man Po (City University of Hong Kong, HK)

Th-P1.4 A simple and robust direction detection algorithm for fast h.264 intra prediction

An-Chao Tsai (University of National Cheng Kung, TW); Jhing-Fa Wang (National Cheng Kung University, TW); Wei-Guang Lin (University of National Cheng Kung, TW); Jar-Ferr Yang (National Cheng Kung University, TW)

Th-P1.5 An adaptive and fast multi-frame selection algorithm for H.264 video coding

Liquan Shen (Shanghai University, CN); Zhi Liu (Shanghai University, CN); Zhao-yang Zhang (Shanghai University, CN)

Th-P1.6 Multi-Pass and Frame Parallel Algorithms of Motion Estimation in H.264/AVC for Generic GPU

Chuan-Yiu Lee (National Taiwan University, TW); Yu-cheng Lin (National Taiwan University, TW); Chi-Ling Wu (National Taiwan University, TW); Chin-Hsiang Chang (National Taiwan University, TW); You-Ming Tsao (National Taiwan University, TW); Shao-Yi Chien (National Taiwan University, TW)

Th-P1.7 Improved Intra Prediction for Efficient Packetization in H.264 with Multiple Slice Groups

Nageswara Rao Gunupudi (Aricent Communication Softwares, IN); SSBK Gupta Pallapothu (Aricent Communication Software, IN)

Th-P1.8 Search Pattern Switching for Motion Estimation using Rate of Error Descent

Ka-Ho Ng (City University of Hong Kong, HK); Lai Man Po (City University of Hong Kong, HK); Ka-Man Wong (City University of Hong Kong, HK)

Th-P1.9 Distortion-based partial distortion search for fast motion estimation

Jong-Ho Kim (ETRI, KR); Byung-Gyu Kim (Electronics and Telecommunications Research Institute, KR); ChangSik Cho (Real-time Multimedia Lab, Electronics and Telecommunications Research Institute (ETRI), KR)

Th-P1.10 Search Area Selective Reuse Algorithm in Motion Estimation

Heejun Shim (Korea Advanced Institute of Science and Technology, KR); Kyungsu Kang (Korea Advanced Institute of Science and Technology, KR); Chong-Min Kyung (Korea Advanced Institute of Science and Technology, KR)

Th-P1.11 Two-Bit Transform Based Block Motion Estimation using Second Derivatives

Nam-Joon Kim (Seoul National University, KR); Sarp Erturk (Kocaeli University, TR); Hyuk-Jae Lee (Seoul National University, KR)

Th-P1.12 A time and storage optimized hardware design for Context-based Adaptive Binary Arithmetic decoding in H.264/AVC

Yan Zheng (Shanghai Jiaotong University, CN); Shibao Zheng (Shanghai Jiaotong University, CN); Zhonghua Huang (Shanghai Jiaotong University, CN); Ziliang Zhao (Shanghai Jiaotong University, CN)

Th-P1.13 An Efficient VLSI Architecture for Lifting-Based Discrete Wavelet Transform

Wang Chao (University of Southeast, CN)

Th-P1.14 On Delayless Architecture for the Normalized Subband Adaptive Filter

Kong-Aik Lee (Institute for Infocomm Research, SG); Woon Seng Gan (Nanyang Technological University, SG)

Th-P1.15 A Cost-effective VLSI Architecture of VLD for MPEG-2 and AVS

Yanmei Qu (Tsinghua University, CN); Yu Li (Tsinghua University, CN); Yun He (Tsinghua University, CN); ShunLiang Mei (Tsinghua University, CN)

Th-P2 Coding Poster 8: Image Processing (Paper #:14)

Chair: Tsuhan Chen, Carnegie Mellon University, US

- Th-P2.1 A unified framework for deblocking block compressed images
Guangtao Zhai (Shanghai Jiao Tong Univ., CN); Wenjun Zhang (Image Communication Institute, Shanghai Jiao Tong University, No. 1954, Huashan Road, Shanghai, P.R., CN); Xiaokang Yang (Shanghai Jaoton University, CN); Lin Weisi (Institute for Infocomm Research, SG); Yi Xu (Shanghai Jiao Tong Univ., CN)
- Th-P2.2 Robust Intensity-Pair Distribution for Image Contrast Enhancement
Radu Bilcu (Nokia Research Center, FI); Markku Vehvilainen (Nokia Research Center, FI)
- Th-P2.3 Virtual view generation based on multiple images
Liang Zhang (Communications Research Centre Canada, CA); Wa James Tam (Communications Research Centre Canada, CA); Gi-Mun Um (Electronics and Telecommunications Research Institute, KR); Filippo Speranza (Communications Research Centre Canada, CA); Nahmo Hur (Electronics and Telecommunications Research Institute, KR); Andre Vincent (Communications Research Centre Canada, CA)
- Th-P2.4 Curvilinear Feature Extraction for Noisy Point Pattern Images
Haonan wang (Colorado State University, US); Thomas Lee (Colorado State University, US)
- Th-P2.5 Blind blur assessment for vision-based applications
Shiqian Wu (Institute for Infocomm Research, SG); Lin Weisi (Institute for Infocomm Research, SG); Zhongkang Lu (Institute for Infocomm Research, SG)
- Th-P2.6 Stochastic Resonance AD Conversion and its Effect on Image Enhancement
Qinghua Ye (Institute of Acoustics, Chinese Academy of Sciences, CN); Haining Huang (Institute of Acoustics, Chinese Academy of Sciences, CN); Ying Chen (Institute of Acoustics, Chinese Academy of Sciences, CN); Biao Tian (Institute of Acoustics, Chinese Academy of Sciences, CN)
- Th-P2.7 Restoration of Digitized Damaged Photos Using Bit-Plane Slicing
Giuseppe Mazzola (Università degli Studi di Palermo, IT); Edoardo Ardizzone (Università degli Studi di Palermo, IT); Haris Dindo (Università degli Studi di Palermo, IT)
- Th-P2.8 A New Energy Function for Segmentation and Compression
Michael King (Simon Fraser University, CA); Zinovi Tauber (Simon Fraser University, CA); Ze-Nian Li (Simon Fraser University, CA)
- Th-P2.9 Remote Sensing Image Fusion Using Multiwavelet Transform Combined with HPF
Yan Meng (Cival Aviation University of China, CN); Xiaoyun Shen (Civil Aviation University of China, CN); Renbiao Wu (Civil Aviation University of China, CN); Hefei Ling (Huazhong University of Science & Technology, CN)
- Th-P2.10 Color Distribution Evenness and Its Application to Color-texture Segmentation
Xin Zhang (Multimedia Research & Development Center, National Univ. of Defense Tech., CN)
- Th-P2.11 Motion Adaptive Spatio-Temporal Gaussian Noise Reduction Filter for Double-Shot Images
Shao-Yi Chien (National Taiwan University, TW); Tse-Wei Chen (National Taiwan University, TW)
- Th-P2.12 Saliency Preserving Multi-focus Image Fusion
Richang Hong (University of Science and Technology of China, CN); Chao Wang (University of Science and Technology of China, CN); Yong Ge (University of Science and Technology of China, CN); Meng Wang (University of Sci&Tech of China, CN); Xiuqing Wu (University of Science and Technology of China, CN); Rong Zhang (University of Science and Technology of China, CN)
- Th-P2.13 A New Approach to Impulse Noise Removal for Color Image
Qing Xu (Tianjin University, CN); Rui Zhang (Tianjin University, CN); Mateu Sbert (Institut d'Informatica i Aplicacions, ES)
- Th-P2.14 Fast Arbitrary Resizing of Images in DCT Domain
Tan Ee Leng (Nanyang Technological University, SG); Woon Seng Gan (Nanyang Technological University, SG); Meng Tong Wong (Texas Instruments Singapore, SG)

Th-P3 Content Poster 5: Multimedia Analysis (II) (Paper #:14)

Chair: Ning Yao, Univ. of Pittsburgh, US

Ayoub Massoudi, Thomson R&D France, FR

- Th-P3.1 2D quaternion Fourier transform: the spectrum properties and its application in color image registration
Zheng Lu (Shanghai Jiao Tong University, CN); Yi Xu (Shanghai Jiao Tong Univ., CN); Xiaokang Yang (Shanghai Jaoton University, CN); Li Song (Shanghai Jiao Tong University, CN)
- Th-P3.2 Video Inpainting for Largely Occluded Moving Human
Haomian Wang (University of Science and Technology of China, CN); Houqiang Li (University of Science and Technology of China, CN); Baoxin Li (Arizona State University, US)

- Th-P3.3 Image Interpolation Based on Statistical Relationship Between Wavelet Subbands
Sang Soo Kim (Pusan National University, KR); Il Kyu Eom (Pusan National University, KR); Yoo Shin Kim (Pusan National University, KR)
- Th-P3.4 A Real-time Score Detection and Recognition Approach in Broadcast Basketball Sports Video
Guangyi Miao (Graduate School of Chinese Academy of Sciences, CN); Guangyu Zhu (Harbin Institute of Technology, CN); Shuqiang Jiang (Institute of Computing Technology, Chinese Academy of Sciences, Beijing 100080, CN); Qingming Huang (Graduate School of Chinese Academy of Sciences, CN); Changsheng Xu (Institute for Infocomm Research, SG); Wen Gao (ICT, CN)
- Th-P3.5 A Reliable Logo and Replay Detector for Sports Video
Qiao Huang (Department of Automation, Tsinghua University, Beijing, P.R. China, CN); Jianming Hu (Tsinghua University, CN); Wei Hu (Intel China Research Center, Intel Corporation, CN); Tao Wang (Intel China Research Center, CN); Hongliang Bai (Graduate School, Chinese Academy of Science, Automation of Institute, CN); Yimin Zhang (Intel China Research Center, CA)
- Th-P3.6 A Video Processing Approach to The Study of Obesity
Ning Yao (University of Pittsburgh, US)
- Th-P3.7 i.Boosting for Image Classification??
Yijuan Lu (University of Texas at San Antonio, US); Tong Zhang (Hewlett-Packard Laboratories, US); Qi Tian (University of Texas at San Antonio, US)
- Th-P3.8 Automatic Children Detection in Digital Images
Hans Weda (Philips Research Europe, NL); Mauro Barbieri (Philips Research, NL)
- Th-P3.9 A hybrid recommender strategy for personalized utility-based cross-modal multimedia adaptation
Martin Prangl (Klagenfurt University, AT); Roland Bachlechner (Klagenfurt University, AT); Hermann Hellwagner (Klagenfurt University, AT)
- Th-P3.10 Multicamera Audio-Visual Analysis of Dance Figures
Ferda Ofli (Koc University, TR); Yasemin Demir (Koc University, TR); Engin Erzin (Koc University, TR); Yücel Yemez (Koc University, TR); A. Murat Tekalp (Koc University, TR)
- Th-P3.11 Modeling Surface from a Single Grayscale Image
Bin Xu (Huazhong University of Science and Technology, CN); Lixin Tang (Huazhong University of Science and Technology, CN); Hanmin Shi (Huazhong University of Science and Technology, CN)
- Th-P3.12 Cryptanalysis of a Video Scrambling Technique Based on Space Filling Curves
Ayoub Massoudi (THOMSON R&D France, FR); frederic lefebvre (Thomson, FR); Marc Joye (Thomson R&D France, FR)
- Th-P3.13 Two-layer Generative Models for Sport Video Mining
Guoliang Fan (Oklahoma State University, US)
- Th-P3.14 Deformation of Time-Varying-Mesh based on Semantic Human Model
Jianfeng Xu (The University of Tokyo, JP); Toshihiko Yamasaki (The University of Tokyo, JP); Kiyoharu Aizawa (University of Tokyo, JP)
- Th-P4 S&A Poster 10: Visualization and Virtual Reality (Paper #:3)
Chair: Zhongding Jiang, Fudan University, China
- Th-P4.1 Implementation of Dynamic Anti-Aliased Shadow Algorithm in 3D Scene
Wanggen Wan (Shanghai University, CN)
- Th-P4.2 View-Dependent Visibility Estimation for Tree Models
Jessy Lee (University of Southern California, US); Jingliang Peng (University of Southern California, US); C.C. Jay Kuo (University of Southern California, US)
- Th-P4.3 3-D Display using Motion Parallax for Extended-Depth Perception
Kazutake Uehira (Kanagawa Institute of Technology, JP); Masahiro Suzuki (Kanagawa Institute of Technology, JP); Takuya Abekawa (Kanagawa Institute of Technology, JP)
- Th-P5 S&A Poster 11: Multimedia Detection, Tracking, and Recognition (Paper #:5)
Chair: Dunwei (Grant) Wen, Athabasca University, Canada
- Th-P5.1 A High-Performance Image Matching and Recognition System for Multimedia Applications
Suya You (University of Southern California, US)
- Th-P5.2 Visual Tracking of Pedestrians Jointly Using Wi-Fi Location System on Distributed Camera Network
Takashi Miyaki (The University of Tokyo, JP); Toshihiko Yamasaki (The University of Tokyo, JP); Kiyoharu Aizawa (Tokyo University, JP)
- Th-P5.3 A Sorted Neighborhood Approach for Detecting Duplicated Regions in Image Forgeries Based on DWT and SVD
Guohui Li (National University of Defense Technology, CN); Qiong Wu (National University of Defense Technology, CN); Dan Tu (National University of Defense Technology, CN); Shaojie Sun (National University of Defense Technology, CN)
- Th-P5.4 User-Assisted People Search in Consumer Image Collections

Andrew Gallagher (Eastman Kodak Company, US); Madirakshi Das (Eastman Kodak Company, US);
Alexander Loui (Eastman Kodak, US)

- Th-P5.5 On Detection of Advertising Images
Dongfang Li (University of Science and Technology of China, CN); Bin Wang (University of Science
and Technology of China, CN); Zhiwei Li (Microsoft Research Asia, CN); Nenghai Yu (University of
Science and Technology of China, CN); Mingjing Li (Microsoft Research Asia, CN)

Th-P6 Assurance Poster 3: Digital Audio Security (Paper #:4)

Chair: Regu Radhakrishnan, Dolby, US

- Th-P6.1 A temporal masking technique and its performance analysis for audio watermarking
Shuang-An Chou (National Chiao Tung University, Taiwan); Shih-Fu Hsieh (National Chiao Tung
University, Taiwan); Ko-Chiang Li (National Chiao Tung University, Taiwan)
Th-P6.2 Analysis-by-Synthesis Echo Hiding Scheme Using Frequency Hopping
Wen-Chih Wu (WuFeng Institute of Technology, Taiwan); OScal T.-C. Chen (National Chung Cheng
University, Taiwan)
Th-P6.3 Spread-Spectrum Audio Watermark Robust Against Pitch-Scale Modification
Lili Li (Shanghai Jiaotong University, China); Jianling Hu (Shanghai Jiaotong University, China);
Xiangzhong Fang (Shanghai Jiaotong University, China)
Th-P6.4 A Perception-based Scalable Encryption Model for AVS Audio
Juan Lan (North China Electric Power University, China); Tiejun Huang (Institute of Computing
Technology, Chinese Academy of Sciences, Beijing 100080, China); Jun Qu (North China Electric
Power University, China)

15:40-17:40 Poster session II

Th-P7 Coding Poster 9: Video Processing (Paper #:9)

Chair: Liang Zhang, Communications Research Centre, Canada

- Th-P7.1 Variable Number of “Informative” Particles for Object Tracking
Yu Huang (Thomson Corporate Research, Princeton, US); Joan Llach (Thomson Inc., US)
Th-P7.2 Video Halftoning Preserving Temporal Consistency
Chun-Shien Lu (Institute of Information Science, Academia Sinica, TW)
Th-P7.3 Multi-scale Gabor Phase-based Stereo Matching using Graph Cuts
Peifeng Zhang (Shanghai JiaoTong University, CN); Yi Xu (Shanghai Jiao Tong Univ., CN); Xiaokang
Yang (Shanghai Jiaotong University, CN)
Th-P7.4 Real-Time Stereo Correspondence Using a Truncated Separable Laplacian Kernel Approximation on
Graphics Hardware
Jiangbo Lu (Dept. of Electrical Engineering, University of Leuven & Multimedia Group, IMEC, BE);
Sammy Rogmans (Dept. of Electronics-ICT, Hogeschool voor Wetenschap & Kunst - DE NAYER,
BE); Gauthier Lafruit (Multimedia Group, IMEC, BE); Francky Catthoor (IMEC, BE)
Th-P7.5 3D Articulated Human Body Tracking Using KLD-Annealed Rao-Blackwellised Particle Filter
Jayanth Madapura (Arizona State University, US); Baoxin Li (Arizona State University, US)
Th-P7.6 Cooperative Stereo Matching Using Quaternion Wavelets and Top-Down Segmentation
Yi Xu (Shanghai Jiaotong University, CN); Xiaokang Yang (Shanghai Jiaotong University, CN); Peifeng
Zhang (Shanghai JiaoTong University, CN); Li Song (Shanghai Jiao Tong University, CN)
Th-P7.7 Depth Map Generation for 2D-to-3D Conversion by Short-Term Motion Assisted Color Segmentation
Yu-Lin Chang (National Taiwan University, TW); Chih-Ying Fang (National Taiwan University, TW);
Li-Fu Ding (National Taiwan University, TW); Shao-Yi Chien (National Taiwan University, TW);
Liang-Gee Chen (National Taiwan University, TW)
Th-P7.8 Maximum a posteriori based (MAP-Based) video denoising via rate distortion optimization
Yan Chen (Hong Kong University of Science and Technology, HK); Oscar Au (HKUST, HK);
Xiaopeng Fan (Hong Kong University of Science and Technology, CN); Liwei Guo (Hong Kong
University of Science and Technology, HK); Peter Hon Wah Wong (Hong Kong University of Science
& Technology, HK)
Th-P7.9 A rough set approach for video deinterlacing
Gwanggil Jeon (Hanyang University, KR)

Th-P8 Content Poster 6: Machine Learning in Multimedia (Paper #:10)

Chair: Pascal Frossard, EPFL, Switzerland

Yi Wu, Intel, US

- Th-P8.1 AHP: A New Strategy for the Semantic Concept Detection in Video
Dayong Ding (Tsinghua University, CN); Jinglan Wu (Minjiang University, CN); Bo Zhang (Tsinghua University, CN)
- Th-P8.2 Learning From Relevance Feedback Sessions Using a K-nearest-neighbor-based Semantic Repository
Matthew Royal (Pensacola Christian College, US); Ran Chang (Utah State University, US); Xiaojun Qi (Utah State University, US)
- Th-P8.3 Are Concept Detector Lexicons Effective for Video Search?
Cees Snoek (University of Amsterdam, NL); Marcel Worring (University of Amsterdam, NL)
- Th-P8.4 Dimensionality Reduction with Adaptive Approximation
Effrosyni Kokiopoulou (EPFL, CH); Pascal Frossard (Swiss Federal Institute of Technology - EPFL, CH)
- Th-P8.5 Discrete Regularization for Perceptual Image Segmentation via Semi-supervised Learning and Optimal Control
Hongwei Zheng (Berlin University of Technology, DE); Olaf Hellwich (Berlin University of Technology, DE)
- Th-P8.6 Clustering Consumer Photos Based on Face Recognition
Liexian Gu (Tsinghua University, CN); Tong Zhang (Hewlett-Packard Laboratories, US); Xiaoqing Ding (Tsinghua University, CN)
- Th-P8.7 Learning Semantic Concepts for Image Retrieval Using the Max-min Posterior Pseudo-Probabilities Method
Yuan Deng (Beijing Institute of Technology, CN); Xiabi Liu (Beijing Institute of Technology, CN); Yunde Jia (Beijing Institute of Technology, CN)
- Th-P8.8 Data Modeling Strategies for Imbalanced Learning in Video Search
Jelena Tesic (IBM Watson Research Center, US); Apostol Natsev (IBM T. J. Watson Research Center, US); Lexing Xie (IBM Research, US); John Smith (IBM T.J. Watson Research Center, US)
- Th-P8.9 Multi-Graph Semi-Supervised Learning for Video Semantic Feature Extraction
Meng Wang (University of Sci&Tech of China, CN); Xian-Sheng Hua (Microsoft Research Asia, CN); Xun Yuan (University of Sci&Tech of China, CN); Yan Song (University of Science and Technology of China, CN); Li-Rong Dai (University of Science and Technology of China, CN)
- Th-P8.10 Learning concept templates from web images to query personal image databases
Yi Wu (Intel Corporation, US); Jean-Yves Bouguet (Intel, US); Ara Nefian (Intel, US); Igor Kozintsev (Intel, US)

Th-P9 Content Poster 7: Motion Analysis and Visual Tracking (Paper #:8)

Chair: Belle Tseng, NEC Labs America, US
Gerhard Rigoll, Tech. Univer. Muenchen, DE

- Th-P9.1 Content-Based Cross Search for Human Motion Data Using Time-Varying Mesh and Motion Capture Data
Toshihiko Yamasaki (The University of Tokyo, JP); Kiyoharu Aizawa (University of Tokyo, JP)
- Th-P9.2 Video Event Detection with Combined Distance-Based and Rule-Based Data Mining Techniques
Zongxing Xie (University of Miami, US); Mei-Ling Shyu (University of Miami, US); Shu-Ching Chen (Florida International University, US)
- Th-P9.3 Splog Detection Using Content, Time and Link Structures
Yu-Ru Lin (Arizona State University, US); Hari Sundaram (Arizona State University, US); Yun Chi (NEC Laboratories America, US); Junichi Tatemura (NEC Laboratories America, Inc., US); Belle Tseng (NEC Labs America, US)
- Th-P9.4 Suspicious Behavior Detection In Public Transport by Fusion of Low-Level Video Descriptors
Dejan Arsic (Technische Universitaet Muenchen, DE); Bjoern Schuller (Technische Universitaet Muenchen, DE); Gerhard Rigoll (Technische Universitaet Muenchen, DE)
- Th-P9.5 Exploring contextual information in a layered framework for group action recognition
Dong Zhang (IDIAP research institute, CH)
- Th-P9.6 Fast and Robust Motion Tracking for Time-Varying Mesh Featuring Reeb-Graph-Based Skeleton Fitting and Its Application to Motion Retrieval
Ryuichi Tadano (The University of Tokyo, JP); Toshihiko Yamasaki (The University of Tokyo, JP); Kiyoharu Aizawa (University of Tokyo, JP)
- Th-P9.7 Moving Object Tracking from Videos based on Enhanced Space-Time-Range Mean Shift and Motion Consistency
Tiesheng Wang (Shanghai Jiao Tong University, CN); Irene Y.H. Gu (Chalmers Univ. of Technology, Sweden, SE); Andrew Backhouse (Chalmers university of technology, SE); Pengfei Shi (Shanghai Jiao Tong University, CN)
- Th-P9.8 Joint Motion and Color Statistical Video Processing for Motion Segmentation
Alexia Briassouli (Informatics and Telematics Institute, GR)

Th-P10 S&A Poster 12: Multimedia Tools, Applications, and Hypermedia Technologies (III) (Paper#:5)

Chair: Qi Tian, University of Texas San Antonio, US

- Th-P10.1 Human-centered multimedia e-learning system for real-time interactive distance education
Yan Liu (The Hong Kong Polytechnic University, HK)
- Th-P10.2 Power Efficient Motion Estimation Using Multiple Imprecise Metric
Insuk Chong (University of Southern California, US); Antonio Ortega (University of Southern California, US)
- Th-P10.3 Performance Evaluation of A New Teleconference System by High Definition Omni-directional Video Transmission
Yoshitaka Shibata (Iwate Prefectural University, JP)
- Th-P10.4 Dynamic Privacy in a Smart House Environment
Simon Moncrieff (Curtin University, AU); Svetha Venkatesh (Curtin University of Technology, AU); Geoff West (Curtin University, AU)
- Th-P10.5 Towards Adversary Aware Surveillance Systems
Vivek Singh (National University of Singapore, SG); Mohan Kankanhalli (National University of Singapore, SG)

Th-P11 S&A Poster 13: Audio, image/video processing for multimedia applications (III) (Paper #:5)

Chair: Ce Zhu, Nanyang Technological University, Singapore

- Th-P11.1 Toward Self-Managed Media Stream Processing Service Overlays
Xiaohui Gu (IBM T.J. Watson Research Center, US); Philip Yu (IBM T.J. Watson Research Center, US)
- Th-P11.2 Gradient Vector Flow Driven Active Shapes for Image Segmentation
Xiaohui Yuan (University of North Texas, US); Balathasan Giritharan (University of North Texas, US); JungHwan Oh (University of North Texas, US)
- Th-P11.3 Extracting Barcodes from a Camera-Shaken Image on Camera Phones
Chung-Hua Chu (National Taiwan University, TW); De-Nian Yang (National Taiwan University, TW); Ming-Syan Chen (National Taiwan University, TW)
- Th-P11.4 A Block-Level Processing of a Video Object Segmentation Algorithm for Real-Time Systems
Jisu Kim (SK Telecom, KR); Jonghwan Zhu (Seoul National University, KR); Hyuk-Jae Lee (Seoul National University, KR)
- Th-P11.5 A High Resolution Video Display System by Seamlessly Tiling Multiple Projectors
Zhongding Jiang (Fudan University, CN); Yandong Mao (Fudan University, CN); Bo Qin (Software School, Fudan University, CN); Binyu Zang (Fudan University, CN)

Th-P12 S&A Poster 14: Audio, image/video coding and transmission for multimedia systems I (Paper #:5)

Chair: Xinggang Lin, Tsinghua University, China

- Th-P12.1 Automatic Multi-Modal Meeting Camera Selection for Video-Conferences and Meeting Browsers
Marc Al-Hames (Technische Universität München, DE); Benedikt Hörnler (Technische Universität München, DE); Ronald Müller (Technische Universität München, DE); Joachim Schenk (Technische Universität München, DE); Gerhard Rigoll (Technische Universität München, DE)
- Th-P12.2 Computational Complexity Optimization in H.264 Video Coding
David Nyeongkyu Kwon (Samsung Electronics, KR)
- Th-P12.3 Video Copy Detection on the Internet: the Challenges of Copyright and Multiplicity
Julien Law-To (INA INRIA Rocquencourt, FR); Valerie Gouet (Conservatoire National des Arts et Metiers, FR); Olivier Buisson (INA, FR); Nozha Boujemaa (INRIA, FR)
- Th-P12.4 Fast algorithm and architecture design for H.264/AVC multiple transforms
Bing Shi (Zhejiang University, CN); Wei Zheng (Zhejiang University, CN); Dongxiao Li (Zhejiang University, CN); Ming Zhang (Zhejiang University, CN)
- Th-P12.5 Real-time DSP implementation on local stereo matching
Nelson Chang (National Chiao Tung University, TW); Ting-Min Lin (National Chiao Tung University, TW); Tsung-Hsien Tsai (National Chiao Tung University, TW); Yu-Cheng Tseng (National Chiao Tung University, TW); Tian-Sheuan Chang (Chiao-Tung University, Taiwan, TW)

Th-P13 Assurance Poster 4: Digital Watermarking III (Paper #:10)

Chair: Jiwu Huang, Sun Yat-sen University, Guangzhou, China

- Th-P13.1 Reversible Semi-fragile Authentication Watermark
Xiaoping Liang (Sun Yat-sen University, China); Weizhao Liang (Sun Yat-sen University, China); Wen Zhang (Sun Yat-sen University, China)
- Th-P13.2 Reversible Data Hiding Using Coefficient Sorting in Integer Wavelet Domain
Siamak Yousefi (Iran Telecommunication Research Center, Iran)

- Th-P13.3 An efficient linguistic steganography for Chinese text
Liu Yuling (Hunan University, China); Sun Xingming (Hunan University, China); Gan Can (Hunan University, China); Wang Hong (Hunan University, China)
- Th-P13.4 Halftone Visual Cryptography Embedding a Natural Grayscale Image Based on Error Diffusion Technique
Emi Myodo (KDDI R&D Laboratories Inc., Japan); Koichi Takagi (KDDI R&D Laboratories Inc., Japan); Satoshi Miyaji (KDDI R&D Laboratories Inc., Japan); Yasuhiro Takishima (KDDI R&D Laboratories Inc., Japan)
- Th-P13.5 A Rotation Invariant Feature and Image Normalization Based Image Watermarking Algorithm
Dong Zheng (University of Ottawa, Canada); Jiying Zhao (University of Ottawa, Canada)
- Th-P13.6 Double Zero-watermarks Scheme Utilizing Scale Invariant Feature Transform and Log-polar Mapping
Li Jing (Information Engineering Institute, The Information Engineering University, China); Fenlin Liu (Information science and technology institute Zhengzhou, China)
- Th-P13.7 Adaptive Multilayer Reversible Data Hiding Using the Mean-to-pixel Difference Modification
Tsai Han Min (University of National Tsing Hua, TW); Long-Wen Chang (Department of Computer Science, National Tsing-Hua University, HsingChu, TW)
- Th-P13.8 A High Secure Reversible Visible Watermarking Scheme
Tsai Han Min (University of National Tsing Hua, TW); Long-Wen Chang (Department of Computer Science, National Tsing-Hua University, HsingChu, TW)
- Th-P13.9 A Robust and Secure Signature Scheme for Video Authentication
Fawad Ahmed (National University of Sciences & Technology, Pakistan); Mohammed Yakoob Siyal (Nanyang Technological University, Singapore)
- Th-P13.10 Audio Signature Extraction based on Projections of Spectrograms
Regunathan Radhakrishnan (Dolby Laboratories Inc, US); Claus Bauer (Dolby Laboratories, US); Corey Cheng (Dolby Laboratories, US); Kent Terry (Dolby Laboratories Inc, US)

Th-P14 Networking Poster 2: Algorithms for Networking (Paper #:12)

Chair: Christine Pépin, DoCoMo US Labs, US

- Th-P14.1 On the Error Resilience of Rate Smoothing Using Explicit Slice-based Mode Selection
Yuan Lin (Norwegian University of Science and Technology, NO); Anna Kim (NTNU, NO); Eren Gurses (Norwegian University of Science and Technology (NTNU), NO); Andrew Perkins (NTNU, NO)
- Th-P14.2 Adaptive Error Resilience Video Coding Based on Redundant Slices of H.264/AVC
Zhenyu Wu (Thomson Inc, US); Jill Boyce (Thomson Inc., US)
- Th-P14.3 A Novel Marker System for Real-time H.264 Video Delivery over DiffServ Networks
Fan Li (Xi'an Jiaotong University, CN); Guizhong Liu (Xi'an Jiaotong University, CN)
- Th-P14.4 Optimal Rate-Based Image Transmissions Via Multiple Paths in Wireless Sensor Network
Honggang Wang (Univ of Nebraska Lincoln, US); Dongming Peng (Univ. Nebraska - Lincoln, US); Wei Wang (Univ of Nebraska Lincoln, US); Hamid Sharif (University of Nebraska-Lincoln, US)
- Th-P14.5 Novel EM-Based Channel Estimation Algorithm for MIMO-OFDM Systems
Wenjun Huo (Information Engineering University, CN)
- Th-P14.6 Empirical Study on Multi-path Benefits on Interactive Video
Hui Zhang (Tsinghua University, CN); Li Tang (Tsinghua University, CN); Zhen Chen (Tsinghua University, CN); Jun Li (Tsinghua University, CN)
- Th-P14.7 Longer, Better: On Extending User Online Duration to Improve Quality of Streaming Service In P2P Networks
Yun Tang (Tsinghua University, CN); Lifeng Sun (Tsinghua University, CN); Kaiyun Zhang (Tsinghua University, CN); Shi-Qiang Yang (Tsinghua University, CN); Yuzhuo Zhong (Tsinghua University, CN)
- Th-P14.8 An Investigation and A Preventing Strategy for the Redundant Packets in P2P Networks with Push Method
Xin Xiao (Tsinghua University, CN); Yuanchun Shi (Tsinghua University, CN); Meng Zhang (Tsinghua University, Beijing, CN)
- Th-P14.9 A Game-based Mechanism For Avoiding Routing Hotspot IN P2P Streaming Distribution
Yang Zhen (Beijing University of Posts and Telecommunications, CN); Huadong Ma (Beijing University of Posts and Telecommunications, CN)
- Th-P14.10 A New Packet Marking Scheme with Fairness Guarantee for DiffServ Network
Myeong-Soo Cheong (Chonbuk National University, KR); Byun-Gon Kim (Kunsan National University, KR); Ce Pan (Chonbuk National University, CN); Kyung-Taek Chung (Kunsan National University, KR); Ki-Hyun Pyun (Chonbuk National University, KR); Sang-Tae Lee (Korea Research Institute of Standards and Science, KR); Byoung-Sil Chon (Chonbuk National University, KR)
- Th-P14.11 Network lifetime maximization in wireless visual sensor networks using a distributed algorithm
Yifeng He (Ryerson University, CA); Ivan Lee (Ryerson, CA); Ling Guan (Ryerson University, CA)
- Th-P14.12 Mismatch Impact on Per-Pixel End-to-End Distortion Estimation and Coding Mode Selection

Hua Yang (Corporate Research, Thomson Inc., US); Kenneth Rose (University of California, Santa Barbara, US)

Th-P15 Multimedia Database Poster (Paper#:8)

Chair: Yannis Avrithis, NTUA, GR
Chengcui Zhang, UAB, US

- Th-P15.1 An Empirical Study on Large-Scale Content-Based Image Retrieval
Yuk Man Wong (The Chinese University of Hong Kong, CN); Chu-Hong Hoi (The Chinese University of Hong Kong, CN); Michael Lyu (The Chinese University of Hong Kong, CN)
- Th-P15.2 Content Based Image Retrieval Using Manifold-Ranking of Blocks
Xiaojun Wan (Peking University, CN)
- Th-P15.3 Incident Retrieval in Transportation Surveillance Videos – An Interactive Framework
Xin Chen (University of Alabama at Birmingham, US); Chengcui Zhang (University of Alabama at Birmingham, US)
- Th-P15.4 Semantic Event Extraction from Basketball Games Using Multi-modal Analysis
Yifan Zhang (Institute of Automation, Chinese Academy of Sciences, CN); Changsheng Xu (Institute for Infocomm Research, SG); Yong Rui (Microsoft Research, US); Jinqiao Wang (Institute of Automation, Chinese Academy of Sciences, CN); Hanqing Lu (Institute of Automation, Chinese Academy of Sciences, CN)
- Th-P15.5 Wavelet-based salient regions and their spatial distribution for image retrieval
Muwei Jian (Ocean University of China, CN); Junyu Dong (Ocean University of China, CN); Rong Jiang (Weihai Vocational College, CN)
- Th-P15.6 Database Clustering Based on Multi-prototype Representation of Cluster
Manhua Liu (Nanyang Technological University, SG); Xudong Jiang (Nanyang Technological University, SG); Alex Kot (Nanyang Technological University, SG)
- Th-P15.7 Positive Sample Enhanced Angle-Diversity Active Learning for SVM Based Image Retrieval
Jin Yuan (Fudan University, CN); Xiangdong Zhou (Fudan University, CN); JunQi Zhang (Fudan University, CN); Mei Wang (Fudan University, CN); Qi Zhang (University of North Carolina at Chapel Hill, US); Wei Wang (Fudan University, CN); Baile Shi (Fudan University, CN)
- Th-P15.8 2D image database indexing: a coefficient-based approach
Xiaoqian Jiang (Carnegie Mellon University, US); Wanhong Xu (Carnegie Mellon University, US); Yiheng Li (Carnegie Mellon University, US); Latanya Sweeney (Carnegie Mellon University, US); Ralph Gross (Carnegie Mellon University, US); Daniel Yurovsky (Carnegie Mellon University, US)

Th-P16 Human Computer Interface Poster 2 (paper # 11)

Chair: Jiebo Luo, Eastman Kodak Company
Zhu Li, Motorola Labs

- Th-P16.1 Featured Wand for 3D Interaction
Feng Guo (Arizona State University, US); Don Kimber (FX Palo Alto Laboratory, Inc., US); Eleanor Rieffel (Fuji-Xerox Palo Alto Lab, US)
- Th-P16.2 Motion and Force Prediction in Haptic Media
Nizar Sakr (University of Ottawa, CA); Nicolas Georganas (University of Ottawa, CA); Jiying Zhao (University of Ottawa, CA); Xiaojun Shen (University of Ottawa, CA)
- Th-P16.3 The Perceptual Impact of Multimedia Delay and Jitter
Stephen Gulliver (Brunel University, UK); Gheorghita Ghinea (Brunel University, UK)
- Th-P16.4 Subject Content-based Intelligent Cropping of Digital Photos
Jiebo Luo (Eastman Kodak Company, US)
- Th-P16.5 A Noise Robust Content-based Music Retrieval System for Mobile Devices
Lihui Guo (East China Normal University, CN); Xin He (Motorola China Research Center, CN); Yaxin Zhang (Motorola China Research Center, CN); Yue Lu (East China Normal University, CN); Ke Peng (Motorola China Research Center, CN)
- Th-P16.6 An Augmented Reality Interface for Mobile Information Retrieval
Jonathan Mooser (University of Southern California, US); Lu Wang (University of Southern California, US); Suyu You (University of Southern California, US); Ulrich Neumann (USC, US)
- Th-P16.7 Improved Histogram Equalization (HEQ) For Robust Speech Recognition
Shih-Hsiang Lin (National Taiwan Normal University, TW); Shih-Hung Liu (National Taiwan Normal University, TW); Yao-Ming Yeh (National Taiwan Normal University, TW); Berlin Chen (National Taiwan Normal University, TW)
- Th-P16.8 A Scheme for Haptic Data Transmission under Various Network Conditions
Yonghee You (University of Incheon, KR); Mee Young Sung (University of Incheon, KR); Kyungkoo Jun (University of Incheon, KR)
- Th-P16.9 Adaptive Human-Machine Interfaces in Cognitive Production Environments

Frank Wallhoff (Technische Universität München, DE); Alexander Bannat (TU München, DE);
Stephan Buchta (TU München, DE); Andreas Rauschert (TU München, DE); Gerhard Rigoll (TU
Muenchen,); Mathey Wiesbeck (TU München, DE); Markus Ablassmeier (Munich University of
Technology, DE)

Th-P16.10 Eye Gaze Studies comparing Head-Up and Head-Down Displays in Vehicles

Markus Ablassmeier (Munich University of Technology, DE); Frank Wallhoff (Technische Universität
München, DE); Tony Poitschke (Dipl.-Ing. univ., DE); Gerhard Rigoll (TU Muenchen,)

Th-P16.11 Web Page Segmentation Based on Gestalt Theory

Peifeng Xiang (Tsinghua University, CN); Xin Yang (Tsinghua University, CN); Yuanchun Shi
(Tsinghua University, CN)