

## Program at a Glance

Time/Day	Sunday (Dec. 11) Registration 8am – 4pm			Monday (Dec. 12) Registration 8am – 4pm					
Room	Donner	San Jose	Santa Clara	Donner	San Jose	Santa Clara			
8:00-8:30	Breakfast								
8:30-9:30	Keynote (1): Ramesh Jain (Donner)			Keynote (3): Pradeep Dubey (Donner)					
9:30-9:50	Coffee Break								
9:50-11:50	Content Understanding, Modeling, Management, and Retrieval (I)	MIPR workshop	Best Paper Session I	Multimedia Data Mining and Deep Learning	Multimedia Streaming, Networking, and QoS (II)	3D Data, Graphics, and Retrieval (II)			
11:50-12:50	Lunch			Lunch & TCMC and TCSEM Joint Meeting (Welcome to all attendees) <i>Donner</i>					
12:50-13:50	Keynote (2): Apostol (Paul) Natsev (Donner)			Keynote (4): Ruzena Bajcsy (Donner)					
14:00-16:00	Content Understanding, Modeling, Management, and Retrieval (II)	Multimedia Streaming, Networking, and QoS (I)	Best Paper Session II	Content Understanding, Modeling, Management, and Retrieval (III)	Media Coding, Processing, and Quality Measurement (I)	Multimedia Security and Forensics			
16:00-16:20	Coffee Break								
16:20-18:00	Media Semantics, Ontologies, and Personalization (I)	Media Semantics, Ontologies, and Personalization (II)	Combined Session: 1. 3D Data, Graphics Retrieval (I) 2. Mobile Multimedia Search	Poster and Demo Session (Donner and Siskiyou and the Foyer area)					
19:00-21:00	Welcome Reception (Siskiyou)			Banquet & Award Ceremony (Siskiyou) Banquet Speaker: Max Mühlhäuser					
Time/Day	Tuesday (Dec. 13) Registration 8am – 12noon								
Room	Donner	San Jose	Santa Clara	Siskiyou					
8:00-8:30	Breakfast								
8:30-9:30	Keynote (5): Jan P. Allebach (Donner)								
9:30-9:50	Coffee Break								
9:50-11:50	Multimedia and Web Interfaces	Media Coding, Processing, and Quality Measurement (II)	MTEL Workshop and Industrial Program						
11:50-12:50	Lunch								
12:50-13:50	Panel: Beyond the Buzz of IoT, Deep Learning, and Cloud: Do they influence future multimedia research? (Donner)								
14:00-16:00	Multimedia Social Network	Media Coding, Processing, and Quality Measurement (III)	Systems and Architectures	13:30 – 17:30 Bay Area Multimedia Forum (BAMMF) Bay Area Multimedia Forum (BAMMF)					
16:00-16:20	Coffee Break								
16:20-18:00	Combined Session: 1. Multimedia Storage and Databases 2. Networking and QoS (III)	MuSDeMP Workshop	Gaming and Virtual Reality						

## Program Details

December 11 (Sunday)	
8:00-16:00	Registration
8:00-8:30	Breakfast and Welcome from Conference Chair
8:30-9:30	<b>Keynote (1): Dr. Ramesh Jain</b> <b>Title: Computing Lifestyle for Controlling Health</b> Room: Donner Session Chair: Mohan Kankanhalli
9:30-9:50	Coffee Break
9:50-11:50	<b>Session 1</b>
<b>Parallel Session 1</b>	<b>Content Understanding, Modeling, Management, and Retrieval (I)</b> Room: Donner Session Chair: Min Chen
Regular paper 33 (25 minutes)	Renata Khasanova*, EPFL; Xiaowen Dong, MIT; Pascal Frossard, EPFL Multi-modal image retrieval with random walk on multi-layer graphs
Regular paper 97 (25 minutes)	Wallapak Tavanapong*, Chuanhai Zhang, Lei Qi, Adisak Sukul, David Peterson Iowa State University, USA Automated Coding of Political Video Ads for Political Science Research
Regular paper 151 (25 minutes)	Yuhui Wang*, Christian Weth, Yehong Zhang, Kian Hsiang Low, Vivek Singh, Mohan Kankanhalli National University of Singapore, Singapore Concept-based Hybrid Fusion of Multimodal Event Signals
Regular paper 63 (25 minutes)	Gustavo Blanco*, Marcos V. N. Bedo, Mirela T. Cazzolato, Lucio F. D. Santos, Ana Elisa Serafim Jorge, Agma J. M. Traina, Paulo M. Azevedo-Marques, Caetano Traina Jr. Universidade de São Paulo A Label-Scaled Similarity Measure for Content-Based Image Retrieval
Short paper 59 (15 minutes)	Lucio Dutra Santos*, Luiz Olmes Carvalho, Marcos Vinicius Naves Bedo, Agma Traina, Caetano Traina Jr. USP When Similarity is Not Enough, Ask for Diversity: Grouping Elements Based on Influence
<b>Parallel Session 1</b>	<b>MIPR Workshop on Multimedia Information Processing and Retrieval</b> Room: San Jose Session Chair: Mei-Ling Shyu
MIPR-1 (16 minutes)	Tzu-Hsiang Huang, Pao-Chi Chang LARGE-SCALE COVER SONG RETRIEVAL SYSTEM DEVELOPED USING MACHINE LEARNING APPROACHES
MIPR-2 (16 minutes)	Hesham Farouk, Kamal A. ElDahshan, Amr Abozeid Context-aware joint Video Summarization and Streaming (CVSS) Approach

MIPR-3 (16 minutes)	Ching-Hua Chuan, Elaine Chew An Optimization-based Approach to Key Segmentation
MIPR-4 (16 minutes)	Yukhe Lavinia, Holly H. Vo, Abhishek Verma Fusion Based Deep CNN for Improved Large-Scale Image Action Recognition
MIPR-5 (16 minutes)	Amir Mazaheri, Boqing Gong, and Mubarak Shah Learning a Multi-concept Video Retrieval Model with Multiple Latent Variables
MIPR-6 (16 minutes)	Ziqi Zhu, Li Zhuo, Panling Qu, Kailong Zhou, Jing Zhang Extreme Weather Recognition using Convolutional Neural Networks
MIPR-13 (16 minutes)	Fu-Hai Frank Wu An Evaluation Framework of Optical Music Recognition in Numbered Music Notation
<b>Parallel Session 1</b>	<b>Best Paper Session I</b> Room: Santa Clara Session Chair: Shervin Shirmohammadi
Regular paper 31 (25 minutes)	Amandianeze Nwana*, Tsuhan Chen Cornell University QUOTE: “Querying” Users as Oracles in Tag Engines A Semi-Supervised Learning Approach to Personalized Image Tagging
Regular paper 48 (25 minutes)	Dekui Ma*, Dalian University of Technology; Jian Liang, National Laboratory of Pattern Recognition; Xiangwei Kong, Dalian University of Technology; Ran He, Institute of Automation, Chinese Academy of Sciences; Ying Li, Dalian University of Technology Discrete Cross-Modal Hashing for Efficient Multimedia Retrieval
Regular paper 112 (25 minutes)	Ryota Hinami*, The University of Tokyo; Shin'ichi Satoh, National Institute of Informatics Audience Behavior Mining by Integrating TV Ratings with Multimedia Contents
Regular paper 153 (25 minutes)	Norio Katayama*, Hiroshi Mo*†, and Shin'ichi Satoh National Institute of Informatics, Japan Unsupervised Estimation of Video Continuity Model from Large-Scale Video Archives and Its Application to Shot Boundary Detection
11:50-12:50	Lunch
12:50-13:50	<b>Keynote (2): Dr. Apostol (Paul) Natsev</b> <b>Title: Teaching Machines to Watch and Listen: Video Understanding at YouTube and Google</b> Room: Donner Session Chair: Mei-Ling Shyu
14:00-16:00	<b>Session 2</b>
<b>Parallel Session 2</b>	<b>Content Understanding, Modeling, Management, and Retrieval (II)</b> Room: Donner Session Chair: Min Chen
Regular paper 98 (25 minutes)	Sarathkrishna Swaminathan, Wreetabrata Kar*, Viswanathan Swaminathan Adobe Audience Validation from Demographic Mix and Insufficient Individual Data

Invited paper 177 (25 minutes)	Denny Stohr*, Stefan Wilk, Iva Toteva, Wolfgang Effelsberg, Ralf Steinmetz TU-Darmstadt Context not Content: A Novel Approach to Real-Time User-Generated Video Composition
Invited paper 179 (25 minutes)	Yu Wang, Yang Feng, Jiebo Luo*, University of Rochester Xiyang Zhang, Beijing Normal University Voting with Feet: Who are Leaving Hillary Clinton and Donald Trump?
Invited paper 185 (25 minutes)	Yong Liu*, Hao Ding, NYU Jia Huang, Drexel University Houwei Cao, New York Institute of Technology Improving Cold Music Recommendation through Hierarchical Audio Alignment
Short paper 84 (15 minutes)	lei yang*, Samuel Cheng, Pramode K. Verma, University of Oklahoma Shuang Wang, University of California, San Diego Text Search: Towards Fast Text Localization in Scene Images
<b>Parallel Session 2</b>	<b>Multimedia Streaming, Networking, and QoS (I)</b> Room: San Jose Session Chair: Yang Lei (HP Labs)
Regular paper 152 (25 minutes)	Yago Sanchez de la Fuente*, Dimitri Pwdborski, Cornelius Hellge, Thomas Schierl Fraunhofer HHI Shifted IDR Representations for Low Delay Live DASH Streaming using HEVC Tiles
Regular paper 83 (25 minutes)	TRIKI Imen*, Elazouzi Rachid, Haddad Majed University of Avignon Anticipating Resource Management and QoE for Mobile Video Streaming under Imperfect Prediction
Invited paper 176 (25 minutes)	Zheng Lu*, Sangeeta Ramakrishnan, Xiaoqing Zhu Cisco Systems Exploiting Video Quality Information in Rate Adaptation for HTTP-based Video Streaming
Short paper 138 (15 minutes)	Mohammad Hosseini*, Adobe Research, UIUC Viswanathan Swaminathan, Adobe Adaptive 360 VR Video Streaming: Divide and Conquer!
Poster paper 38 (15 minutes)	Rintaro Harada*, Shintaro Saika, Masaru Takeuchi, Kenji Kanai, Waseda University Yasutaka Matsuo, NHK Jiro Katto, Waseda University Quality Evaluations of 8K/60P UHD TV Retransmission for a Broadcasting and Communication Integrated Platform
<b>Parallel Session 2</b>	<b>Best Paper Session II</b> Room: Santa Clara Session Chair: Shervin Shirmohammadi
Regular paper 118 (25 minutes)	Stefano D'Aronco*, EPFL Laura Toni, UCL Pascal Frossard, EPFL Price-based Controller for Quality-Fair HTTP Adaptive Streaming
Regular paper 91 (25 minutes)	Ryan Janzen*, Steve Mann University of Toronto Feedback Control System for Exposure Optimization in High-Dynamic-Range Multimedia

	Sensing
Regular paper 40 (25 minutes)	Lingchao Kong*, Rui Dai University of Cincinnati Temporal-Fluctuation-Reduced Video Encoding for Object Detection in Wireless Surveillance Systems
16:00-16:20	Coffee Break
16:20-18:00	<b>Session 3</b>
<b>Parallel Session 3</b>	<b>Media semantics, ontologies, and personalization (I)</b> Room: Donner Session Chair: Tong Zhang (Intel)
Regular paper 95 (25 minutes)	Marcio Moreno*, Rafael Brandao, Renato Cerqueira IBM Extending hypermedia conceptual models to support hyperknowledge specifications
Invited paper 187 (25 minutes)	Wenjie Zhu, Yiling Xu*, Shanghai Jiao Tong University Zhu Li, University of Missouri-Kansas city Light Reference Video Quality Estimation with Embedding of Compact Features
Short paper 116 (15 minutes)	Shuanglu Dai*, Xingzhong Xu, Bitian Jiang, Hong Man Stevens Institute of Technology Multiscale Sentiment Classification Using Canonical Correlation Analysis on Riemannian Manifolds
Short paper 143 (15 minutes)	Marcio Moreno*, Rafael Brandao, Juliana Jansen Ferreira, Ana Fucs, Renato Cerqueira IBM Towards a Conceptual Model for Cognitive-Intensive Practices
<b>Parallel Session 3</b>	<b>Media semantics, ontologies, and personalization (II)</b> Room: San Jose Session Chair: Xiaofan Lin (A9)
Invited paper 184 (25 minutes)	Panchanathan Sethuraman*, Shayok Chakraborty, Troy McDaniel, Matt Bunch Arizona State University Noel O'Connor, Suzanne Little, Kevin McGuinness, Mark Marsden Dublin City University Smart Stadium for Smarter Living: Enriching the Fan Experience
Invited paper 188 (25 minutes)	Tarek Elgamel*, Klara Nahrstedt, Shannon Chen University of Illinois at Urbana-Champaign Physical Relationship Description for Cyber-Physical Multi-Modal Sensory Environments
Invited paper 183 (25 minutes)	Dick Bulterman*, Vrije Universiteit and CWI Deep Tweaking: Thoughts on Measuring Audience Engagement
Short paper 121 (15 minutes)	Ryosuke Shigenaka*, Yukihiro Tsuboshita, Noriji Kato Fuji Xerox Co. Ltd. Content-Aware Multi-Task Neural Networks for User Gender Inference based on Social Media Images

<b>Parallel Session 3</b>	<b>3D Data, Graphics, and Retrieval (I) and Mobile Multimedia Search</b> Room: Santa Clara Session Chair: Rui Shen (VIPShop)
Short paper 106 (15 minutes)	Takahiro Hayashi*, Masaru Hirose, Keisuke Suzuki, Niigata University Koji Abe, Kinki University Similarity Retrieval of 3D Models with Query by Clay Sketch
Short paper 120 (15 minutes)	Faisal Ahmed*, Padma Polash Paul, Marina Gavrilova University of Calgary Adaptive Pooling of the Most Relevant Spatio-Temporal Features for Action Recognition
Short paper 74 (15 minutes)	Mahdi Salarian*, Rashid Ansari University of Illinois at Chicago Improved Image Retrieval for Efficient Localization in Urban Areas Using Location Uncertainty Data
Short paper 82 (15 minutes)	Hamzah AlGhamdi*, Abdulmotaleb El Saddik University of Ottawa E-Tourism: Mobile Dynamic Trip Planner
Short paper 132 (15 minutes)	Mahdi Salarian*, Nick Iliev, Rashid Ansari University Of Illinois Accurate Image based Localization by applying SFM and Coordinate System Registration
Short paper 141 (15 minutes)	Lukas Beck, Heiko Schuldt* University of Basel, Switzerland City-Stories: A Spatio-Temporal Mobile Multimedia Search System
19:00-21:00	<b>Welcome Reception (Siskiyou)</b>

<b>December 12 (Monday)</b>	
8:00-16:00	Registration
8:00-8:30	Breakfast and Welcome from Conference Chair
8:30-9:30	<b>Keynote (3): Dr. Pradeep Dubey</b> <b>Title: The Quest for The Ultimate Learning Machine</b> Room: Donner Session Chair: Tong Zhang (Intel)
9:30-9:50	Coffee Break
9:50-11:50	<b>Session 4</b>
<b>Parallel Session 4</b>	<b>Multimedia Data Mining and Deep Learning</b> Room: Donner Session Chair: Min Chen
Regular paper 44 (25 minutes)	Rene Dias, Dibio Borges* University of Brasilia Recognizing Plant Species in the Wild: deep learning results and a new database
Regular paper 150 (25 minutes)	Samira Pouyanfar, Shu-Ching Chen* Florida International University Semantic Event Detection Using Ensemble Deep Learning
Regular paper 154 (25 minutes)	Holly H. Vo, Abhishek Verma* California State University, Fullerton New Deep Neural Nets for Fine-Grained Diabetic Retinopathy Recognition on Hybrid Color Space
Regular paper 126 (25 minutes)	Jingwen Liu*, Yanlei Gu, Shunsuke Kamijo The University of Tokyo Joint Customer Pose and Orientation Estimation using Deep Neural Network from Surveillance Camera
Short paper 18 (15 minutes)	Junnan Li*, Wong Yongkang, Mohan Kankanhalli National University of Singapore, Singapore Multi-stream Deep Learning Framework for Automated Presentation Assessment
<b>Parallel Session 4</b>	<b>Multimedia Streaming, Networking, and QoS (II)</b> Room: San Jose Session Chair: Yang Lei (HP Labs)
Regular paper 42 (25 minutes)	Mahdi Hemmati*, University of Ottawa Bill McCormick, Huawei Technologies Canada Shervin Shirmohammadi, University of Ottawa, Canada Fair and Efficient Bandwidth Allocation for Video Flows Using Sigmoidal Programming

Regular paper 128 (25 minutes)	Ashkan Sobhani*, Abdulsalam Yassine, Shervin Shirmohammadi University of Ottawa, Canada QoE-Driven Optimization for DASH Service in Wireless Networks
Regular paper 180 (25 minutes)	Abinesh Ramakrishnan, Cedric Westphal*, Huawei Jonnahtan Saltarin, University of Bern Adaptive Video Streaming over CCN with Network Coding for Seamless Mobility
Short paper 64 (15 minutes)	Mohammad Alsmirat*, Jordan University of Science and Technology Nabil Sarhan, Wayne State University Cross-Layer Optimization for Automated Video Surveillance
<b>Parallel Session 4</b>	<b>3D Data, Graphics, and Retrieval (II)</b> Room: Santa Clara Session Chair: Guanming Su (Dolby)
Regular paper 56 (25 minutes)	Ramakrishnan Mukundan* University of Canterbury, New Zealand Reconstruction of High Resolution 3D Meshes of Lung Geometry from HRCT Contours
Regular paper 100 (25 minutes)	David Gonzalez-Aguirre*, Javier Felip, Shahrokh Shahidzadeh Intel Labs Infinite-Resolution 3D Modeling from a Single Image for Free-Form Revolution Objects
Regular paper 69 (25 minutes)	Chengwu Liang*, Enqing Chen, Lin Qi, Zhengzhou University Ling Guan, Ryerson University 3D Action Recognition Using Depth-based Feature and Locality-constrained Affine Subspace Coding
Short paper 21 (15 minutes)	SeungJin Lim*, Merrimack College A Visualization Primitive for Multiway Relationships
Short paper 101 (15 minutes)	Nasim Hajari, Irene Cheng, Anup Basu* University of Alberta Robust Human Animation Skeleton Extraction using Compatibility and Correctness Constraints
11:50-12:50	Lunch & TCMC and TCSEM Joint Meeting (Welcome to all attendees, Room: Donner)
12:50-13:50	<b>Keynote (4): Ruzena Bajcsy</b> <b>Title: Development of Kinematic and Dynamic Models for Individual using System Estimation and Identification Techniques</b> Room: Donner Session Chair: Chengcui Zhang (University of Alabama at Birmingham)
14:00-16:00	<b>Session 5</b>
<b>Parallel Session 5</b>	<b>Content Understanding, Modeling, Management, and Retrieval (III)</b> Room: Donner Session Chair: Mark Claypool
Regular paper 12 (25 minutes)	Daniel Rotman*, Dror Porat, Gal Ashour IBM Robust and Efficient Video Scene Detection Using Optimal Sequential Grouping



Regular paper 119 (25 minutes)	Yilin Yan, Mei-Ling Shyu* Miami University, USA Enhancing Rare Class Mining in Multimedia Big Data by Concept Correlation
Short paper 73 (15 minutes)	Caio Duarte Diniz Monteiro*, Christy Maria Mathew, Frank Shipman, Ricardo Gutierrez-Osuna Texas A&M University Detecting and Identifying Sign Languages through Visual Features
Short paper 54 (15 minutes)	Lei Gao*, Ling Guan, Ryerson University Lin Qi, Enqing Chen, Zhengzhou University A Novel Discriminative Framework Integrating Kernel Entropy Component Analysis and Discriminative Multiple Canonical Correlation for Information Fusion
<b>Parallel Session 5</b>	<b>Media Coding, Processing, and Quality Measurement (I)</b> Room: San Jose Session Chair: Xiaoqing Zhu
Regular paper 75 (25 minutes)	Kashyap Kammachi Sreedhar*, Alireza Aminlou, Miska Hannuksela, Nokia Technologies Moncef Gabbouj, TUT, Tampere, Finland Standard-compliant Multiview Video Coding and Streaming for Virtual Reality Applications
Regular paper 157 (25 minutes)	Mohammad Kazemi*, University of Isfahan, Iran Razib Iqbal, Missouri State Univesrity, USA Shervin Shirmohammadi, University of Ottawa A Selective Intra-Coding Approach for Multiple Description Video Coding
Invited paper 178 (25 minutes)	Ernestasia Siahaan*, Alan Hanjalic, Judith Redi TU Delft, Netherland Augmenting Blind Image Quality Assessment using Image Semantics
Short paper 46 (15 minutes)	Fahd Bouzaraa*, Technical Unviersity of Munich Onay Urfalioglu, Huawei European Research Center CNN BASED NON-LOCAL COLOR MAPPING
Short paper 148 (15 minutes)	Ryan Janzen*, Steve Mann University of Toronto The Physical-Fourier-Amplitude Domain, and Application to Sensing Sensors
<b>Parallel Session 5</b>	<b>Multimedia Security and Forensics</b> Room: Santa Clara Session Chair: Chengcui Zhang
Short paper 17 (15 minutes)	CHULE YANG*, DANWEI WANG, Prarinya Siritanawan Nanyang Technological University Organ-Based Facial Verification Using Thermal Camera
Short paper 107 (15 minutes)	Michael Wolfram, Haider Ali*, Alin Albu-Schaeffer Robotics and Mechatronics Center (RMC), German Aerospace Center (DLR) Visual focus of attention recognition from fixed chair sitting postures using RGB-D data
Short paper 110 (15 minutes)	Barbara Hilsenbeck*, David Münch, Ann-Kristin Grosselfinger, Wolfgang Hübner, Michael Arens Fraunhofer IOSB, Ettlingen Action recognition in the longwave infrared and the visible spectrum using Hough forests

Short paper 135 (15 minutes)	Sina Gholamnejad Davani, Nabil Sarhan*, Musab Al-Hadrusi Wayne State University A Clustering Approach for Controlling PTZ Cameras in Automated Video Surveillance
Short paper 109 (15 minutes)	Munif Alotaibi*, Ausif Mahmood University of Bridgeport Reduction of Gait Covariate Factors Using Feature Selection and Sparse Dictionary Learning
Short paper 23 (15 minutes)	Mejren Mohammad*, Sabu Emmanuel Kuwait University Improving SURF Based Copy-Move Forgery Detection Using Super Resolution
16:00-16:20	Coffee Break
16:20-18:00	<b>Session 6</b>
<b>Parallel Session 6</b>	<b>Poster and Demo Session</b> Room: (Donner and Siskiyou and the Foyer area) Session Chair: Shanchan Wu (HP Labs)
Poster paper 19	Omar Alaql*, Kambiz Ghazinour, Cheng Chang Lu Kent state university Classification of Image Distortions based on Features Evaluation
Poster paper 20	Ahmad Delforouzi*, Amir Tabatabaei, Kimiaki Shirahama University of Siegen Polar Object Tracking in 360-Degree Camera Images
Poster paper 29	Tuoerhongjiang Yusufu*, Naifan Zhuang, Kien A. Hua University of Central Florida Relational Learning based Happiness Intensity Analysis in a Group
Poster paper 38	Rintaro Harada*, Shintaro Saika, Masaru Takeuchi, Kenji Kanai, Waseda University Yasutaka Matsuo, NHK Jiro Katto, Waseda University Quality Evaluations of 8K/60P UHD TV Retransmission for a Broadcasting and Communication Integrated Platform
Poster paper 55	Mengyan Yuan*, Enqing Chen, Zhengzhou University Lei Gao, Ryerson University Posture Selection Based on Two-layer AP with Application to Human Action Recognition Using HMM
Poster paper 62	Vicky Sintunata*, Terumasa Aoki Tohoku University Skeleton Extraction in Cluttered Image based on Delaunay Triangulation
Poster paper 81	Weixuan Chen*, Rosalind Picard MIT Media Lab Predicting Perceived Emotions in Animated GIFs with 3D Convolutional Neural Networks
Poster paper 92	Tunde Akinjala, Ruth Agada, Jie Yan* Bowie State University Animating Human Movement & Gestures on an Agent using Microsoft Kinect

Poster paper 108	Xin Zhou, Northwestern Polytechnical University Guangming Shi, Xidian University Wei Zhou*, Northwestern Polytechnical University  Perceptual CU Size Decision and Fast Prediction Mode Decision Algorithm for HEVC Intra Coding
Poster paper 114	Xin Guo*, Lin Qi, Zhengzhou University Ling Guan, Ryerson University  Semi-supervised and semi-paired graph regularized multiset canonical correlation analysis
Poster paper 115	Han Wu, Xiangwei Kong*, Hongxue Yang, Ying Li Dalian University of Technology  Sparse Feature Preservation for Relative Attribute Learning
Poster paper 125	Okan çandır*, Elif karşılıgil Yıldız Technical University  Detection of the Periodicity of Human Actions for Efficient Video Summarization
Demo paper 159	Takahiro Hayashi* Niigata University  OtoPittan: A Music Recommendation System for Making Impressive Videos
Demo paper 160	Sarang Nerkar*, Pete Scourboutakos, Ryan Janzen, Steve Mann University of Toronto  Extrapolative Lightspace Method for HDR Video Exposure Selection
Demo paper 163	Robert Skupin*, Yago Sanchez de la Fuente, Cornelius Hellge, Thomas Schierl Fraunhofer HHI  Tile Based HEVC Video for Head Mounted Displays
Demo paper 164	Junnan Li*, Wong Yongkang, Mohan Kankanhalli National University of Singapore, Singapore  Demo Paper: PreSense - An Assistive Presentation Self-Quantification System
Demo paper 166	Mary Amiri*, Karun Pal Singh Malik, Hussein Al Osman, Shervin Shirmohammadi University of Ottawa, Canada  GAME-AWARE RESOURCE MANAGER FOR HOME GATEWAYS
Demo paper 168	Rodrigo Laiola Guimaraes* IBM Research  Rethinking Online Code Editors for Authoring Web-Based Multimedia Presentations
Demo paper 169	Mohammad Hosseini*, Viswanathan Swaminathan Adobe  Adaptive 360 VR Video Streaming based on MPEG-DASH SRD
Demo paper 170	Lloyd Smith* Missouri State University  A Virtual Xylophone for Music Education
Demo paper 171	Wei-Bang Chen*, Virginia State University; James Li, Virginia state University  A Fully Automated Approach for Classification of Microstructures in Thermal Barrier Coating Microscopic Images
19:00-21:00	<b>Banquet (Siskiyou)</b> <b>Banquet Speaker: Max Mühlhäuser</b>



December 13 (Tuesday)	
8:00-16:00	Registration
8:00-8:30	Breakfast and Welcome from Conference Chair
8:30-9:30	<p><b>Keynote (5): Dr. Jan P. Allebach</b>  <b>Title: Small, Medium, and Big Data: Application of Machine Learning Methods to the Solution of Real-World Imaging and Printing Problems</b></p> <p>Room: Donner  Session Chair: Shervin Shirmohammadi</p>
9:30-9:50	Coffee Break
9:50-11:50	<b>Session 7</b>
<b>Parallel Session 7</b>	<p><b>Multimedia and Web Interfaces</b></p> <p>Room: Donner  Session Chair: Lei Zhang (Microsoft Research)</p>
Regular paper 37 (25 minutes)	<p>HISAYUKI OHMATA*, NHK  Andrew Lippman, MIT</p> <p>8K Time into Space: Web-based Interactive Storyboard with Playback for Hundreds of Videos</p>
Regular paper 131 (25 minutes)	<p>Roman Hak*, Czech Technical University, Prague  Tomáš Zeman, CVUT</p> <p>Improving Response Time Through Multimodal Integration Pattern Modeling</p>
Regular paper 22 (25 minutes)	<p>Xinyao Sun, Irene Cheng, Anup Basu*  University of Alberta</p> <p>SPATIO-TEMPORALLY OPTIMIZED MULTI-SENSOR MOTION FUSION</p>
Short paper 127 (15 minutes)	<p>Wen-Hung Liao*, Chiu-Fang Peng  National Chengchi University</p> <p>Evaluation of interactive data visualization tools based on gaze and mouse tracking</p>
Short paper 35 (15 minutes)	<p>Pierrick Bruneau*, Mickaël Stefas, LIST, Luxembourg  Johann Poignant, LIG  Hervé Bredin, Claude Barras, LIMSI, France</p> <p>Post-Hoc Interactive Analytics of Errors in the Context of a Person Discovery Task</p>
<b>Parallel Session 7</b>	<p><b>Media Coding, Processing, and Quality Measurement (II)</b></p> <p>Room: San Jose  Session Chair: Roger Zimmermann</p>
Regular paper 11 (25 minutes)	<p>Bo-Hao Chen*, Yuan Ze University  Chia-Hao Chang, Shih-Chia Huang, National Taipei University of Technology</p> <p>Denoising Using Inverse-Distance Weighting with Sparse Approximation</p>

Regular paper 130 (25 minutes)	Jui-Hsin Lai*, Ruichi Yu, Ching-Yung Lin IBM T.J. Watson Research Center Neuron Activity Extraction and Network Analysis on Mouse Brain Videos
Regular paper 134 (25 minutes)	Luis Henrique Vogado*, Universidade Federal do Piauí Rodrigo Veras, Alan Ribeiro Andrade, Flavio Araujo, Romuere Silva, Federal University of Piauí Fátima N. Medeiros, Universidade Federal do Ceará Unsupervised Leukemia Cells Segmentation Based on Multi-space Color Channels
Regular paper 149 (25 minutes)	Wu-chi Feng*, Ryan Feng, Paul Wyatt, Feng Liu Portland State University Understanding the Impact of Compression on Feature Detection and Matching in Computer Vision
Short paper 58 (15 minutes)	Saeed Shafiee Sabet*, Mahmoud R. Hashemi, Mohammad Ghanbari University of Tehran, Iran A Testing Apparatus for Faster and More Accurate Subjective Assessment of Quality of Experience in Cloud Gaming
<b>Parallel Session 7</b>	<b>MTEL Workshop and Industrial Program</b> Room: Santa Clara Session Chair: Florian Schimanke
Industrial paper 43 (20 minutes)	Rodrigo Ferreira*, Andrea Britto, Emilio Brazil, Renato Cerqueira, IBM Marco Ferraz, Sérgio Cersosimo, Galp Energia Multi-scale Evaluation of Texture Features for Salt Dome Detection
Industrial paper 113 (20 minutes)	Shuichi Kurabayashi*, Hidetoshi Ishiyama, Masaru Kanai Cygames, Inc. Sensing-by-Overlaying: A Practical Implementation of a Multiplayer Mixed-Reality Gaming System by Integrating a Dense Point Cloud and a Real-Time Camera
Industrial paper 122 (20 minutes)	Joni Räsänen*, Marko Viitanen, Jarno Vanne, Timo Hämäläinen, Tampere University of Technology Miska Hannuksela, Vinod Malamal Vadakital, Nokia Technologies RTP/RTCP Reception Hint Tracks for Video Call Recording and Playback
MTEL-2 (20 minutes)	Paul E. Dickson, Chris Kondrat, W. Richards Adrion, Tim D. Richards, Ryan B. Szeto Improved Whiteboard Processing for Lecture Capture
MTEL-3 (20 minutes)	Florian Schimanke, Robert Mertens, Oliver Vornberger, Leonard Hill Simulating Context in Mobile Learning Games for Testing and Debugging
11:50-12:50	Lunch
12:50-13:50	<b>Panel: Beyond the Buzz of IoT, Deep Learning, and Cloud: Do they influence future multimedia research?</b> Room: Donner Session Chairs: Lei Zhang, Balakrishnan Prabhakaran Panelists: Jan Allebach (Purdue University), Gerald Friedland (UC Berkeley), Ramesh Jain (UC Irvine), Qian Lin (HP Labs), Qiong Liu (PXPAL)

13:30 – 17:30	<b>Bay Area Multimedia Forum (BAMMF)</b> Room: Siskiyou
14:00-16:00	<b>Session 8</b>
<b>Parallel Session 8</b>	<b>Multimedia Social Network</b> Room: Donner Session Chair: Samira Pouyanfar (FIU)
Regular paper 96 (25 minutes)	Teresa Bracamonte*, Aidan Hogan, Barbara Poblete University of Chile Applying community detection methods to cluster tags in multimedia search results
Regular paper 26 (25 minutes)	Martin Pichl*, Eva Zangerle and Gunther Specht University of Innsbruck Understanding Playlist Creation on Music Streaming Platforms
Invited paper 174 (20 minutes)	Jitao Sang*, Changsheng Xu, CASIA Ramesh Jain, UCI Social Multimedia Ming: from Special to General
Invited paper 175 (20 minutes)	Rajiv Shah*, NUS Anupam Samanta, Deepak Gupta, Indian Institute of Technology Yi Yu, National Institute of Informatics Suhua Tang, The University of Electro-Communications, Japan Roger Zimmermann, NUS PROMPT: Personalized User Tag Recommendation for Social Media Photos Leveraging Personal and Social Contexts
Invited paper 189 (20 minutes)	Chitrakar Pradip, Chengcui Zhang*, Gary Warner, Xinpeng Liao The University of Alabama at Birmingham, USA Social Media Image Retrieval using Distilled Convolutional Neural Network for Suspicious e-Crime and Terrorist Involvement Detection
<b>Parallel Session 8</b>	<b>Media Coding, Processing, and Quality Measurement (III)</b> Room: San Jose Session Chair: Chengcui Zhang
Invited paper 162 (25 minutes)	Yifang Yin*, Zhenguang Liu, Satyam, Roger Zimmermann National University of Singapore Laplacian Sparse Coding of Scenes for Video Classification
Invited paper 172 (25 minutes)	Mehdi Stapleton, Ivan Bajic* Simon Fraser University Robust Domain-Filling Plumb-Line Lens Distortion Correction
Invited paper 173 (25 minutes)	Andrea Salvi, Marco Bertini*, Alberto Del Bimbo University of Florence Bloom Filters and Compact Hash Codes for Efficient and Distributed Image Retrieval
Short paper 34 (15 minutes)	Yasutaka Matsuo*, Shinichi Sakaida NHK Super-Resolution Method by Registration of Multi-Scale Components Considering Color Sampling Pattern and Frequency Spectrum Power of UHDTV Camera

Short paper 57 (15 minutes)	Ramin Ghaznavi Youvalari*, Alireza Aminlou, Miska Hannuksela, Nokia Technologies Moncef Gabbouj, TUT, Tampere, Finland Efficient Coding of 360-Degree Pseudo-Cylindrical Panoramic Video for Virtual Reality Applications
<b>Parallel Session 8</b>	<b>Systems and Architectures</b> Room: Santa Clara Session Chair: Tong Zhang
Short paper 28 (15 minutes)	Ilija Hadzic*, Martin Carroll, Hans Woithe Bell Labs, Nokia Low-Level Frame-Buffer Scraping for GPUs in the Cloud
Short paper 146 (15 minutes)	Xueshi Hou*, Yao Lu, Sujit Dey University of California, San Diego A Novel Hyper-cast Approach to Enable Cloud-based Virtual Classroom Applications
Short paper 105 (15 minutes)	Jungwoo Lee, Minseok Song* INHA University Cache Management for Video Servers by the Combined Use of DRAM and SSD
Short paper 9 (15 minutes)	Stefan Petersson*, Håkan Grahn, Blekinge Institute of Technology Jim Rasmusson, Sony Mobile Communications AB COLOR DEMOSAICING USING STRUCTURAL INSTABILITY
16:00-16:20	Coffee Break
16:20-18:00	<b>Session 9</b>
<b>Parallel Session 9</b>	<b>Multimedia Storage and Databases, and Networking and QoS (III)</b> Room: Donner Session Chair: Yi Wu (Intel Labs)
Regular paper 61 (25 minutes)	Dominik Van Opdenbosch*, Eckehard Steinbach TUM AVLAD: Optimizing the VLAD image signature for specific feature descriptors
Regular paper 53 (25 minutes)	Kai Li*, Guojun Qi, Jun Ye, Tuohongjiang Yusuph, Kien Hua University of Central Florida Supervised Ranking Hash for Semantic Similarity Search
Invited paper 190 (25 minutes)	Is-Haka Mkwawa*, Alcardo Alex Barakabitze, Lingfen Sun University of Plymouth, UK Video Quality Management over the Software Defined Networking
Short paper 137 (15 minutes)	Sanjeel Parekh*, Technicolor R&D France Frederic Font, Xavier Serra, Universitat Pompeu Fabra Improving Audio Retrieval through Loudness Profile Categorization
<b>Parallel Session 9</b>	<b>MuSDeMP Workshop</b> Room: San Jose Session Chair: Rodrigo Ferreira
MuSDeMP-2 (20 minutes)	Rodrigo C M Santos, IBM/PUc-Rio Francisco Sant'Anna, UERJ Marcio Moreno, IBM



	Noemi Rodriguez, PUC-Rio Renato Cerqueira, IBM Cognitive Computing Systems in Reactive Multimedia Applications Developed in CÉU
MuSDeMP-3 (20 minutes)	Daniel Chevitarese, Marcelo Nery IBM Real-time face tracking and recognition on IBM neuromorphic chip
MuSDeMP-4 (20 minutes)	Marcio Moreno, Rafael Brandao, Renato Cerqueira IBM Challenges on Multimedia for Decision-Making in the Era of Cognitive Computing
MuSDeMP-5 (20 minutes)	Juliana Ferreira, Marcio Moreno, Rafael Brandao, Renato Cerqueira IBM Multimedia in Cognitive-Intensive Practices: a case with ATLAS.ti supporting HCI Qualitative Research
MuSDeMP-6 (20 minutes)	Bernardo Goncalves IBM Show me the material evidence --- Initial experiments on evaluating hypotheses from user-generated multimedia data
<b>Parallel Session 9</b>	<b>Gaming and Virtual Reality</b> Room: Santa Clara Session Chair: Steve Cho (Intel)
Regular paper 104 (25 minutes)	Mary Amiri*, Hussein Al Osman, Shervin Shirmohammadi University of Ottawa, Canada Datacenter Traffic Shaping for Delay Reduction in Cloud Gaming
Invited paper 186 (25 minutes)	Mark Claypool* WPI On Models for Game Input with Delay - Moving Target Selection with a Mouse
Short paper 77 (15 minutes)	Kashyap Kammachi Sreedhar*, Alireza Aminlou, Miska Hannuksela, Nokia Technologies Moncef Gabbouj, TUT, Tampere, Finland Viewport-adaptive Encoding and Streaming of 360-degree Video for Virtual Reality Applications
Short paper 39 (15 minutes)	Aleksandr Setkov*, Michele Gouiffes LIMSI, CNRS, Univ. Paris-Sud, Université Paris-Saclay Geometric compensation of dynamic video projections