Monday 28 January

SESSION 1: Keynote Session: Celebrating 20 Years of HVEI I
Session Chairs: Bernice E. Rogowitz, IBM T.J. Watson Research Ctr.; Thrasyvoulos N. Pappas, Northwestern Univ.
Room: TBD Mon. 10:30 to 11:50 am

10:30 am: Image statistics and surface perception (Keynote), Edward H. Adelson, Massachusetts Institute of Technology [6806-01]

11:10 am: The perception of simulated materials (Keynote), Holly E. Rushmeier, Yale Univ. [6806-02]

Lunch Break Mon. 11:50 am to 1:30 pm

SESSION 2: Keynote Session: Celebrating Twenty Years of HVEI II
Session Chair: Bernice E. Rogowitz, IBM T.J. Watson Research Ctr.; Thrasyvoulos N. Pappas, Northwestern Univ.
Room: TBD Mon. 1:30 to 3:30 pm

1:30 pm: Single-photon imaging inspired by human vision (Keynote), Hooman Mohseni, Northwestern Univ. [6806-03]

2:10 pm: The appearance of images (Keynote), Karen K. De Valois, Univ. of California/Berkeley [6806-04]

2:50 pm: Non-Euclidean virtual environments for probing the human representation of space, (Keynote), Kerstin Schill, Christoph Zetzsche, Univ. Bremen (Germany) [6806-05]

Coffee Break Mon. 3:30 to 4:00 pm

SESSION 3: Cortical Modeling and Representation
Session Chair: Stanley A. Klein, Univ. of California/Berkeley
Room: TBD Mon. 4:00 to 5:00 pm

4:00 pm: Statistics of natural scenes and the cortical representation of color, Guillermo A. Cecchi, A. Ravishankar Rao, IBM Thomas J. Watson Research Ctr. [6806-06]

4:20 pm: Combining MRI and VEP imaging to isolate the temporal response of visual cortical areas, Thom Carney, Justin Ales, Stanley A. Klein, Univ. of California/Berkeley [6806-07]

4:40 pm: Mathematical modeling and neuroscience of metaphor, Hawley K. Rising III, Consultant [6806-08]

Human Vision and Electronic Imaging Banquet
Room: TBD Mon. 7:00 to 10:30 pm
Tuesday 29 January

SESSION 4: Perception and High Dynamic Range Displays
Session Chair: Thrasyvoulos N. Pappas, Northwestern Univ.
Room: TBD ................................................................. Tues. 9:30 to 10:30 am

9:30 am: Separating the effects of glare from simultaneous contrast in HDR images, Alessandro Rizzi, Marzia Pezzetti, Univ. degli Studi di Milano (Italy); John J. McCann, McCann Imaging [6806-09]

9:50 am: Extending quality metrics to full luminance range images, Tunç O. Aydin, Rafal Mantiuk, Hans P. Seidel, Max-Planck-Institut für Informatik (Germany) [6806-10]

10:10 am: Perception-based contrast enhancement model for complex images in high-dynamic range, Akiko Yoshida, Grzegorz Krawczyk, Karol Myszkowski, Hans-Peter Seidel, Max-Planck-Institut für Informatik (Germany) [6806-11]

Coffee Break...................................................................................................................... 10:30 to 11:00 am

SESSION 5: Vision and Graphics
Session Chair: Bernice E. Rogowitz, IBM T.J. Watson Research Ctr..
Room: TBD ...................................................................................................................... Tues. 11:00 to 11:40 am

11:00 am: Perceived quality assessment of polygonal meshes using observer studies: a new extended protocol, Samuel Silva, Beatriz Sousa Santos, Joaquim Madeira, Carlos M. Ferreira, Univ. de Aveiro (Portugal) [6806-12]

11:20 am: Dimensionality of visual complexity in computer graphics scenes, Ganesh Ramanarayanan, Kavita Bala, James A. Ferwerda, Bruce Walter, Cornell Univ. [6806-13]

Lunch/Exhibition Break..................................................................................................... 11:40 am to 1:30 pm

SESSION 6: Next-generation Interactive Environments
Session Chair: Huib de Ridder, Delft Univ. of Technology (Netherlands); Adar Pelah, Univ. of York (UK)
Room: TBD ...................................................................................................................... Tues. 1:30 to 3:30 pm

1:30 pm: Beyond image quality: designing engaging interactions with digital products, Huib de Ridder, Delft Univ. of Technology (Netherlands); M.C. Rozendaal, Eindhoven Univ. of Technology (Netherlands) [6806-14]

1:50 pm: Impact of sound on image-evoked emotions, Rene van Egmond, Delft Univ. of Technology (Netherlands) [6806-15]

2:10 pm: The impact of interactive manipulation on the recognition of objects, Frank Meijer, Egon van den Broek, Univ. Twente (Netherlands) [6806-16]

2:30 pm: Virtual hand: A novel 3D tactile interface to virtual environments, Bernice E. Rogowitz, Paul Borrel, IBM T.J. Watson Research Ctr. [6806-17]

2:50 pm: Touch, tools, and telepresence – The role of embodiment in medical environments, Wijnand A. Ijsselsteijn and Andal Haans, Eindhoven Univ. Of Technology (Netherlands)

Coffee Break...................................................................................................................... 3:10 to 3:40 pm

3:40 pm: Augmented reality in physical procedures, Eigil Samset, Univ. of Oslo (Norway) [6806-18]

4:00 pm: Context-based pixelization model for artificial retina using saliency map and skin color detection algorithm, Seonmi Jin, Seoul National Univ. (South Korea); Inbum Lee, Electronics and Telecommunications Research Institute (South Korea); Jooman Han, Kwangsuk Park, Seoul National Univ. (South Korea) [6806-19]

Discussion Session
Room: TBD ...................................................................................................................... Tues. 4:20 to 5:30 pm
Interactive Paper and Symposium Demonstration Session
Room: TBD ................................................................. Tues. 5:30 to 8:30 pm

Demonstrations 5:30 to 8:30 pm
A symposium-wide demonstration session will be open to attendees 5:30 to 8:30 pm Tuesday evening in Room Exhibit Hall 1. Demonstrators will provide interactive, hands-on demonstrations of a wide-range of products related to Electronic Imaging.

Posters 5:30 to 7:00 pm
Posters will be placed on display after 9:00 am in Exhibit Hall 1. An interactive paper session, with authors present at their posters, will be held Tuesday evening, 5:30 to 7:00 pm.

Unsupervised color image segmentation using a dynamic color gradient thresholding algorithm, Guru Prashanth Balasubramanian, Eli Saber, Vladimir Misic, Eric Peskin, Rochester Institute of Technology; Mark Q. Shaw, Ranjit Bhaskar, Hewlett-Packard Co. [6806-51]

Comparison of eye tracking devices used on printed images, Barbora Kominkova, Gjøvik Univ. College (Norway) and Univ. of Pardubice (Czech Republic) [6806-52]

Evaluation of video quality models for multimedia, Kjell E. Brunnstrom, Acreo AB (Sweden); David S. Hands, British Telecommunications plc (United Kingdom); Filippo Speranza, Communications Research Ctr. Canada (Canada); Arthur A. Webster, National Telecommunications and Information Administration [6806-53]

Designing caption production rules based on face, text, and motion detection, Claude Chapdelaine, Mario Beaulieu, Langis Gagnon, CRIM (Canada) [6806-54]

Human-centered content-based image retrieval, Egon L. van den Broek, Univ. Twente (Netherlands); Thijs Kok, Theo E. Schouten, Louis G. Vuurpijl, Radboud Univ. Nijmegen (Netherlands) [6806-55]

Extension of a human visual system model for display simulation, Cédric Marchessoux, Barco N.V. (Belgium); Alexis Rombaut, Univ. Gent (Belgium); Tom R. Kimpe, Barco N.V. (Belgium); Brecht Vermeulen, Piet M. Demeester, Univ. Gent (Belgium) [6806-56]

Wednesday 30 January

SESSION 7: Visual Attention and Gaze
Session Chair: Bernice E. Rogowitz, IBM T.J. Watson Research Ctr.
Room: TBD ..................................................................................................................... Wed. 9:30 am to 12:00 pm

9:30 am: Natural systems analysis (Keynote) (Invited Paper), Wilson S. Geisler, The Univ. of Texas at Austin [6806-20]

10:10 am: Hyperspectral image visualization based on a human visual model, Hongqin Zhang, Honghong Peng, Mark D. Fairchild, Rochester Institute of Technology; Ethan D. Montag, Leuze Lumiflex, Inc. [6806-21]

Coffee Break ..................................................................................................................... 10:30 to 11:00 am

11:00 am: Dynamic visual attention: motion direction versus motion magnitude, Alexandre Bur, Univ. of Neuchâtel (Switzerland); Pascal Wurtz, Rene Muri, Univ. Bern (Switzerland); Heinz Hugo, Univ. of Neuchâtel (Switzerland) [6806-22]

11:20 am: Motion saliency outweighs low-level features while watching videos, Dwarikanath Mahapatra, Stefan Winkler, Shih-Cheng Yen, National Univ. of Singapore (Singapore) [6806-23]

11:40 am: Automatic video summarization driven by a spatio-temporal attention model, Remi Barland, Abdelhakim Saadane, Univ. de Nantes (France) [6806-24]

Lunch/Exhibition Break ..................................................................................................... 12:00 to 1:30 pm

SESSION 8: Visual Perception in the Detection and Tracking of Objects
Session Chair: Thrasyvoulos N. Pappas, Northwestern Univ.
Room: TBD ..................................................................................................................... Wed. 1:30 to 3:10 pm
1:30 pm: Inhibitory surround and grouping effects in human and computational multiple object tracking, Ozgur Yilmaz, Univ. of Houston; Sadiye Guler, intuVision, Inc.; Haluk Ogmen, Univ. of Houston [6806-25]

1:50 pm: Quantifying the perceived interest of objects in images: effects of size, location, blur, and contrast, Vamsi Kadiyala, Srivani Pinneli, Eric C. Larson, Damon M. Chandler, Oklahoma State Univ. [6806-26]

2:10 pm: The pupil dilation response to visual detection, Claudio M. Privitera, Univ. of California/Berkeley; Laura W. Renninger, The Smith-Kettlewell Eye Research Institute; Thom Carney, Stanley A. Klein, Univ. of California/Berkeley; Mario Aguilar, Teledyne Scientific Co. [6806-27]

2:30 pm: The influence of image compression on target acquisition, Ofer Hadar, Einav Goldberg, Einat Topchik, Ben-Gurion Univ. of the Negev (Israel) [6806-28]

2:50 pm: Adapting images to observers, Kyle McDermott, Michael A. Webster, Univ. of Nevada/Reno [6806-29]

Coffee Break ........................................................................................................................................ 3:10 to 3:30 pm

SESSION 9: Art, Aesthetics, and Perception
Session Chairs: Elena A. Fedorovskaya, Eastman Kodak Co.; Hawley K. Rising III, Consultant
Room: TBD ........................................................................................................................................ Wed. 3:30 to 4:50 pm

3:30 pm: Perceptual rendering of HDR in painting and photography, John J. McCann, McCann Imaging [6806-30]

3:50 pm: The art of non-photographic imaging, Nathan Moroney, Hewlett-Packard Co. [6806-31]

4:10 pm: Aesthetics versus utility in electronic imaging, Floris L. van Nes, Technische Univ. Eindhoven (Netherlands) [6806-32]

4:30 pm: On the role of artistic intent of image quality, Scott J. Daly, Sharp Labs. of America, Inc. [6806-33]

Discussion and Art Museum Trip
Room: TBD ........................................................................................................................................ Wed. 5:00 pm

Thursday 31 January

SESSION 10: Image Statistics, Quality, and Compression
Session Chair: Bernice E. Rogowitz, IBM T.J. Watson Research Ctr.
Room: TBD ........................................................................................................................................ Thurs. 8:40 to 11:50 am

8:40 am: On performance of human visual system based image quality assessment metric using wavelet domain, Alexandre Ninassi, Thomson R&D France (France) and Univ. de Nantes (France); Olivier Le Meur, Thomson R&D France (France); Patrick Le Callet, Dominique Barba, Univ. de Nantes (France) [6806-34]

9:00 am: Using gaze information to improve image difference metrics, Marius Pedersen, Jon Y. Hardeberg, Peter Nussbaum, Gjovik Univ. College (Norway) [6806-35]


9:40 am: Image cluster compression using texture databases, Matthias Kramm, Technische Univ. München (Germany) [6806-37]

Coffee Break ........................................................................................................................................ 10:00 to 10:30 am

10:30 am: Image mapping using local and global statistics, Yuanzhen Li, Edward H. Adelson, Massachusetts Institute of Technology [6806-38]

10:50 am: Analyzing the role of visual structure in the recognition of natural image content with multiscale SSIM, David M. Rouse, Sheila S. Hemami, Cornell Univ. [6806-39]
11:10 am: A psychovisual experiment on the use of Gibbs potential for the quality assessment of geometrically distorted images, Angela D'Angelo, Mirco Pacitto, Mauro Barni, Univ. degli Studi di Siena (Italy) [6806-40]

11:30 am: Structure-preserving properties of bilevel image compression, Matthew G. Reyes, Univ. of Michigan; Xiaonan Zhao, Northwestern Univ.; David L. Neuhoff, Univ. of Michigan; Thrasyvoulos N. Pappas, Northwestern Univ. [6806-41]

Lunch Break.............................................................................................................................................. 11:50 am to 1:40 pm

SESSION 11: Higher Level Issues in Image Quality
Session Chair: Thrasyvoulos N. Pappas, Northwestern Univ.
Room: TBD ....................................................................................................................................................Thurs. 1:40 to 3:00 pm

1:40 pm: Subjective responses to constant and variable quality video, David S. Hands, British Telecommunications plc (United Kingdom) [6806-42]

2:00 pm: Improving visual content accessibility for low vision in MPEG-21 framework, Jongsoo Choi, Seungji Yang, Yong Man Ro, Information and Communications Univ. (South Korea); Soo-Jun Park, Electronics and Telecommunications Research Institute (South Korea) [6806-43]

2:20 pm: The color preference control based on two-color combinations, Jiyoung Hong, Youngshin Kwak, DuSik Park, Chang-Yeong Kim, SAMSUNG Advanced Institute of Technology (South Korea) [6806-44]

2:40 pm: Effect of blackness level on visual impression of color images, Tetsuya Eda, Yoshiki Koike, Sakurako Matsushima, Miyoshi Ayama, Utsunomiya Univ. (Japan) [6806-45]

Coffee Break...................................................................................................................................... 3:00 to 3:30 pm

SESSION 12: Perception, Resolution, and Display
Session Chair: Ramin Samadani, Hewlett-Packard Labs.; Thrasyvoulos N. Pappas, Northwestern Univ.
Room: TBD ....................................................................................................................................................Thurs. 3:30 to 5:10 pm

3:30 pm: Adaptation of document images to display constraints (Invited Paper), Kathrin Berkner, Berna Erol, Ricoh Innovations, Inc. [6806-46]


4:10 pm: Influence of camera and in-scene motion on perceived video quality in MPEG-2 adaptive coding, Nele N. Van den Ende, Philips Research Labs. (Netherlands) and Technische Univ. Eindhoven (Netherlands); Carmen Wijermans, Lydia Meesters, Technische Univ. Eindhoven (Germany); Jettie Hoonhout, Philips Research Labs. (Netherlands) [6806-48]

4:30 pm: A quality metric for use with frame-rate based bandwidth adaptation algorithms, Matthias Krause, Michael v. Hartskamp, Emile Aarts, Koninklijke Philips Electronics N.V. (Netherlands) [6806-49]

4:50 pm: Digital image resolution and visual acuity, Kenichiro Masaoka, Masayuki Sugawara, Yuji Nojiri, Japan Broadcasting Corp. (Japan); Takahiro Niida, International Univ. of Health and Welfare (Japan) [6806-50]

Discussion Session
Room: TBD ....................................................................................................................................................Thurs. 5:10 to 6:00 pm