Keynote Session: Celebrating 20 Years of HVEI I
Image statistics and surface perception
The perception of simulated materials
Keynote Session: Celebrating 20 Years of HVEI II
Single-photon imaging inspired by human vision
Appearance of images
Cortical Modeling and Representation
Statistics of natural scenes and the cortical representation of color
Combining MRI and VEP imaging to isolate the temporal response of visual cortical areas
Mathematical modeling and the neuroscience of metaphor
Perception and High Dynamic Range Displays
Separating the effects of glare from simultaneous contrast
Extending quality metrics to full luminance range images
Perception-based contrast enhancement model for complex images in high dynamic range
Vision and Graphics
Perceived quality assessment of polygonal meshes using observer studies: a new extended protocol
Dimensionality of visual complexity in computer graphics scenes
Next-Generation Interactive Environments
Beyond image quality: designing engaging interactions with digital products
Impact of sound on Image-evoked emotions
The impact of interactive manipulation on the recognition of objects
Virtual hand: a 3D tactile interface to virtual environments
Touch, tools, and telepresence: embodiment in mediated environments
Augmented reality in surgical procedures
Context-based pixelization model for the artificial retina using saliency map and skin color detection algorithm
Visual Attention and Gaze
Natural systems analysis
Hyperspectral image visualization based on a human visual model
Dynamic visual attention: motion direction versus motion magnitude
Motion saliency outweighs other low-level features while watching videos
Automatic video summarization driven by a spatio-temporal attention model
Visual Perception in the Detection and Tracking of Objects
Inhibitory surround and grouping effects in human and computational multiple object tracking
Quantifying the perceived interest of objects in images: effects of size, location, blur, and contrast
The pupil dilation response to visual detection
The influence of image compression on target acquisition
Adapting images to observers
Art, Aesthetics, and Perception
Peceptual rendering of HDR in painting and photography
The art of non-photographic imaging
Aesthetics versus utility in electronic imaging

Image Statistics, Quality, and Compression
On the performance of human visual system based image quality assessment metric using wavelet domain
Using gaze information to improve image difference metrics
The effect of lightness scaling on the perceived color quality of compressed digital videos
Image group compression using texture databases
Image mapping using local and global statistics
Analyzing the role of visual structure in the recognition of natural Image content with multi-scale SSIM
A psychovisual experiment on the use of Gibbs potential for the quality assessment of geometrically distorted images
Structure-preserving properties of bilevel image compression

Higher Level Issues in Image Quality
Subjective responses to constant and variable quality video
Improving visual content accessibility for low-vision users in the MPEG-21 multimedia framework
The colour preference control based on two-colour combinations
Effect of blackness level on visual impression of color images

Perception, Resolution, and Display
Adaptation of document images to display constraints
Representative image thumbnails: automatic and manual
Influence of camera and in-scene motion on perceived video quality in MPEG-2 adaptive coding
A quality metric for use with frame-rate based bandwidth adaptation algorithms
Perceptual limit to display resolution of images as per visual acuity

Interactive Paper Session
Unsupervised color image segmentation using a dynamic color gradient thresholding algorithm
Comparison of eye tracking devices used on printed images
Evaluation of video quality models for multimedia
Designing caption production rules based on face, text, and motion detection
Human-centered content-based image retrieval
Extension of a human visual system model for display simulation

Author Index

Table of Contents provided by Blackwell's Book Services and R.R. Bowker. Used with permission.