

# PROCEEDINGS OF SPIE

[SPIDigitalLibrary.org/conference-proceedings-of-spie](https://spiedigitallibrary.org/conference-proceedings-of-spie)

## Front Matter: Volume 9599

, "Front Matter: Volume 9599," Proc. SPIE 9599, Applications of Digital Image Processing XXXVIII, 959901 (10 September 2015); doi: 10.1117/12.2218079

**SPIE.**

Event: SPIE Optical Engineering + Applications, 2015, San Diego, California, United States

PROCEEDINGS OF SPIE

# ***Applications of Digital Image Processing XXXVIII***

**Andrew G. Tescher**  
*Editor*

**10–13 August 2015**  
**San Diego, California, United States**

*Sponsored and Published by*  
SPIE

**Volume 9599**  
Part One of Two Parts

Proceedings of SPIE 0277-786X, V. 9599

SPIE is an international society advancing an interdisciplinary approach to the science and application of light.

Applications of Digital Image Processing XXXVIII, edited by Andrew G. Tescher,  
Proc. of SPIE Vol. 9599, 959901 · © 2015 SPIE · CCC code: 0277-786X/15/\$18  
doi: 10.1117/12.2218079

Proc. of SPIE Vol. 9599 959901-1

The papers in this volume were part of the technical conference cited on the cover and title page. Papers were selected and subject to review by the editors and conference program committee. Some conference presentations may not be available for publication. Additional papers and presentation recordings may be available online in the SPIE Digital Library at [SPIDigitalLibrary.org](http://SPIDigitalLibrary.org).

The papers reflect the work and thoughts of the authors and are published herein as submitted. The publisher is not responsible for the validity of the information or for any outcomes resulting from reliance thereon.

Please use the following format to cite material from these proceedings:

Author(s), "Title of Paper," in *Applications of Digital Image Processing XXXVIII*, edited by Andrew G. Tescher, Proceedings of SPIE Vol. 9599 (SPIE, Bellingham, WA, 2015) Six-digit Article CID Number.

ISSN: 0277-786X  
ISSN: 1996-756X (electronic)  
ISBN: 9781628417654

Published by

**SPIE**

P.O. Box 10, Bellingham, Washington 98227-0010 USA  
Telephone +1 360 676 3290 (Pacific Time) · Fax +1 360 647 1445  
[SPIE.org](http://SPIE.org)

Copyright © 2015, Society of Photo-Optical Instrumentation Engineers.

Copying of material in this book for internal or personal use, or for the internal or personal use of specific clients, beyond the fair use provisions granted by the U.S. Copyright Law is authorized by SPIE subject to payment of copying fees. The Transactional Reporting Service base fee for this volume is \$18.00 per article (or portion thereof), which should be paid directly to the Copyright Clearance Center (CCC), 222 Rosewood Drive, Danvers, MA 01923. Payment may also be made electronically through CCC Online at [copyright.com](http://copyright.com). Other copying for republication, resale, advertising or promotion, or any form of systematic or multiple reproduction of any material in this book is prohibited except with permission in writing from the publisher. The CCC fee code is 0277-786X/15/\$18.00.

Printed in the United States of America.

Publication of record for individual papers is online in the SPIE Digital Library.

**SPIE. DIGITAL  
LIBRARY**

[SPIDigitalLibrary.org](http://SPIDigitalLibrary.org)

---

**Paper Numbering:** *Proceedings of SPIE* follow an e-First publication model. A unique citation identifier (CID) number is assigned to each article at the time of publication. Utilization of CIDs allows articles to be fully citable as soon as they are published online, and connects the same identifier to all online and print versions of the publication. SPIE uses a six-digit CID article numbering system structured as follows:

- The first four digits correspond to the SPIE volume number.
- The last two digits indicate publication order within the volume using a Base 36 numbering system employing both numerals and letters. These two-number sets start with 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 0A, 0B ... 0Z, followed by 10-1Z, 20-2Z, etc. The CID Number appears on each page of the manuscript.

# Contents

ix *Authors*  
xiii *Conference Committee*

## Part One

<b>SESSION 1</b>	<b>APPLICATIONS</b>
9599 02	<b>Sparse reconstruction of compressed sensing multispectral data using a cross-spectral multilayered conditional random field model [9599-1]</b>
9599 03	<b>Optical character recognition of camera-captured images based on phase features [9599-2]</b>
9599 04	<b>Performance evaluation of correlation filters for target tracking [9599-3]</b>
9599 05	<b>Shearlet-based edge detection: flame fronts and tidal flats [9599-4]</b>
9599 06	<b>The impact of privacy protection filters on gender recognition [9599-5]</b>
9599 07	<b>Detection of smoke plume for a land-based early forest fire detection system [9599-6]</b>
9599 08	<b>Localization of tumors in various organs, using edge detection algorithms [9599-7]</b>
9599 09	<b>Inpainting using airy diffusion [9599-8]</b>
<b>SESSION 2</b>	<b>HDR I</b>
9599 0A	<b>Performance and complexity of color gamut scalable coding [9599-10]</b>
9599 0B	<b>Implication of high dynamic range and wide color gamut content distribution [9599-11]</b>
9599 0C	<b>HEVC for high dynamic range services [9599-12]</b>
9599 0D	<b>Chroma sampling and modulation techniques in high dynamic range video coding [9599-13]</b>
9599 0F	<b>On metrics for objective and subjective evaluation of high dynamic range video [9599-15]</b>
9599 0G	<b>Towards high dynamic range extensions of HEVC: subjective evaluation of potential coding technologies [9599-16]</b>

---

**SESSION 3 DIGITAL HOLOGRAPHY**

---

- 9599 OH **Digital signal processing of light in holographic 3D imaging (Invited Paper)** [9599-17]
- 9599 OI **Compression of digital holographic data: an overview** [9599-18]
- 9599 OJ **Fast generation of complex modulation video holograms using temporal redundancy compression and hybrid point-source/wave-field approaches** [9599-19]
- 9599 OK **Subjective quality assessment of numerically reconstructed compressed holograms** [9599-20]

---

**SESSION 4 ALGORITHMS**

---

- 9599 OL **The image registration of multi-band images by geometrical optics** [9599-22]
- 9599 ON **Quick matching of binary images** [9599-24]
- 9599 OO **Airy-Kaup-Kupershmidt filters applied to digital image processing** [9599-25]
- 9599 OP **Compression and denoising in magnetic resonance imaging via SVD on the Fourier domain using computer algebra** [9599-26]

---

**SESSION 5 HDR II**

---

- 9599 OR **Effects of display rendering on HDR image quality assessment** [9599-28]
- 9599 OS **Color transfer between high-dynamic-range images** [9599-29]
- 9599 OT **The JPEG XT suite of standards: status and future plans** [9599-30]
- 9599 OU **Live HDR video streaming on commodity hardware** [9599-31]
- 9599 OV **Study of high dynamic range video quality assessment** [9599-32]
- 9599 OX **Rendering of HDR content on LDR displays: an objective approach** [9599-34]

---

**SESSION 6 VIDEO QUALITY ASSESSMENT**

---

- 9599 OY **Objective video presentation QoE predictor for smart adaptive video streaming** [9599-35]
- 9599 OZ **Experimental design and analysis of JND test on coded image/video** [9599-36]
- 9599 10 **Predicting the visibility of dynamic DCT distortions in natural videos** [9599-37]
- 9599 11 **A time-varying subjective quality model for mobile streaming videos with stalling events** [9599-38]

- 9599 12 **The effect of texture granularity on texture synthesis quality** [9599-39]
- 9599 14 **Neurophysiological assessment of perceived image quality using steady-state visual evoked potentials** [9599-41]
- 9599 15 **Optimal sequence duration for subjective video quality assessment** [9599-42]

---

**SESSION 7 APPLICATIONS AND EXTENSIONS FOR HIGH EFFICIENCY VIDEO CODING (HEVC)**

---

- 9599 17 **Video streaming with efficient SHVC to HEVC transcoding** [9599-43]
- 9599 18 **A perceptual quantization strategy for HEVC based on a convolutional neural network trained on natural images** [9599-44]
- 9599 19 **Compression performance of HEVC and its format range and screen content coding extensions** [9599-45]
- 9599 1A **Pattern-based integer sample motion search strategies in the context of HEVC** [9599-46]
- 9599 1B **Coding tools investigation for next generation video coding based on HEVC** [9599-47]
- 9599 1C **Coding efficiency improvements beyond HEVC with known tools** [9599-48]
- 9599 1D **Improved intra-block copy and motion search methods for screen content coding** [9599-49]

## **Part Two**

---

**SESSION 8 COMPRESSION AND PROCESSING ISSUES**

---

- 9599 1E **An overview of new video coding tools under consideration for VP10: the successor to VP9** [9599-50]
- 9599 1F **DCT-based cyber defense techniques** [9599-51]
- 9599 1H **Overview of MPEG internet video coding** [9599-53]
- 9599 1I **Privacy-preserving photo sharing based on a public key infrastructure** [9599-54]
- 9599 1K **Compressed data organization for high throughput parallel entropy coding** [9599-57]
- 9599 1M **Objective and subjective quality assessment of geometry compression of reconstructed 3D humans in a 3D virtual room** [9599-113]

---

**POSTER SESSION**

---

- 9599 1P **Registration of point cloud data for HDD stamped base inspection** [9599-60]

- 9599 1Q **Robust illumination-invariant tracking algorithm based on HOGs** [9599-61]
- 9599 1R **Adaptive codebook selection schemes for image classification in correlated channels** [9599-62]
- 9599 1T **Digital image database processing to simulate image formation in ideal lighting conditions of the human eye** [9599-64]
- 9599 1V **A position, rotation, and scale invariant image descriptor based on rays and circular paths** [9599-66]
- 9599 1W **ROI-preserving 3D video compression method utilizing depth information** [9599-67]
- 9599 1Y **Korteweg-de Vries-Kuramoto-Sivashinsky filters in biomedical image processing** [9599-69]
- 9599 1Z **System of scale-selective tomography of myocardium birefringence** [9599-70]
- 9599 20 **Mueller-matrix invariant of optical anisotropy of the bile polycrystalline films in the diagnosis of human liver pathologies** [9599-71]
- 9599 21 **Autofluorescent polarimetry of bile films in the liver pathology differentiation** [9599-72]
- 9599 22 **Polarization-correlation microscopy of human liquid polycrystalline films in infertility diagnosis** [9599-73]
- 9599 23 **Volumetric liquid flow measurement through thermography to simulate blood flow in an artery** [9599-75]
- 9599 24 **Multifunctional polarization tomography of optical anisotropy of biological layers in diagnosis of endometriosis** [9599-76]
- 9599 26 **Explicit solutions of one-dimensional total variation problem** [9599-78]
- 9599 27 **Performance evaluation of image deconvolution techniques in space-variant astronomical imaging systems with nonlinearities** [9599-79]
- 9599 28 **Implementation of cost-effective diffuse light source mechanism to reduce specular reflection and halo effects for resistor-image processing** [9599-80]
- 9599 29 **A fusion algorithm for building three-dimensional maps** [9599-81]
- 9599 2B **Dermoscopy analysis of RGB-images based on comparative features** [9599-83]
- 9599 2C **Meteor localization via statistical analysis of spatially temporal fluctuations in image sequences** [9599-84]
- 9599 2D **Virtual spectral multiplexing for applications in in-situ imaging microscopy of transient phenomena** [9599-85]
- 9599 2E **Additive discrete 1D linear canonical transform** [9599-86]
- 9599 2F **Color normalization for robust evaluation of microscopy images** [9599-87]

- 9599 2G **Inference of dense spectral reflectance images from sparse reflectance measurement using non-linear regression modeling** [9599-88]
- 9599 2H **A digital architecture for striping noise compensation in push-broom hyperspectral cameras** [9599-89]
- 9599 2I **Blind identification of linear degradation operators in the Fourier domain** [9599-90]
- 9599 2J **Support plane method applied to ground objects recognition using modelled SAR images** [9599-92]
- 9599 2K **A custom hardware classifier for bruised apple detection in hyperspectral images** [9599-94]
- 9599 2L **GPU accelerated processing of astronomical high frame-rate videosequences** [9599-95]
- 9599 2M **Pattern recognition descriptor using the Z-Fisher transform** [9599-96]
- 9599 2N **Fourier-based segmentation of microcalcifications in mammograms** [9599-97]
- 9599 2O **A dendritic lattice neural network for color image segmentation** [9599-98]
- 9599 2Q **Analysis of the hand vein pattern for people recognition** [9599-100]
- 9599 2R **Correlation peak analysis applied to a sequence of images using two different filters for eye tracking model** [9599-101]
- 9599 2S **Robust template matching using run-length encoding** [9599-102]
- 9599 2U **Reconstruction of digital holograms from three intensity measurements** [9599-104]
- 9599 2V **Non-destructively reading out information embedded inside real objects by using far-infrared light** [9599-105]
- 9599 2W **Information embedding in real object images using temporally brightness-modulated light** [9599-106]
- 9599 2X **Tutte polynomial in functional magnetic resonance imaging** [9599-107]
- 9599 2Y **Detecting curvatures in digital images using filters derived from differential geometry** [9599-108]
- 9599 3I **Restoration of hot pixels in digital imagers using lossless approximation techniques** [9599-111]





## Authors

Numbers in the index correspond to the last two digits of the six-digit citation identifier (CID) article numbering system used in Proceedings of SPIE. The first four digits reflect the volume number. Base 36 numbering is employed for the last two digits and indicates the order of articles within the volume. Numbers start with 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 0A, 0B...0Z, followed by 10-1Z, 20-2Z, etc.

Aaron, Anne, 0Z  
Acqualagna, Laura, 14  
Ahar, Ayyoub, 0K  
Alam, Md Mushfiqul, 10, 18  
Alshin, Alexander, 1C  
Alshina, Elena, 1C  
Álvarez-Borrego, Josué, 2M, 2R  
Amsalem, Yaron, 1F  
Antipov, Grigory, 06  
Arango, Juan Camilo, 1Y  
Artemyev, Dmitry N., 2B  
Bachinskiy, V. T., 1Z  
Baddeley, Roland, 15  
Bankoski, James, 1E  
Banterle, Francesco, 0R  
Barajas-García, Carolina, 2M  
Baylon, David, 0F  
Bedinerman, Anton, 1F  
Bednář, Jan, 27  
Berrani, Sid-Ahmed, 06  
Blankertz, Benjamin, 14  
Blinder, David, 0K  
Boichuk, T. M., 1Z  
Bosse, Sebastian, 14  
Bouatouch, Kadi, 0S  
Bovik, Alan C., 11  
Bratchenko, Ivan A., 2B  
Bross, Benjamin, 1A  
Bruylants, Tim, 0K, 0T  
Budagavi, Madhukar, 1C  
Bull, David, 15  
Cárdenas, Javier, 2K  
Castañeda-Santos, Jessica, 1T  
Castro-Ortega, R., 2Q  
Cesar, Pablo, 1M  
Chalmers, Alan, 0U  
Chandler, Damon M., 10, 18  
Chen, Jianle, 1B  
Chen, Tao, 0B  
Chen, Ying, 1B  
Chen, Yung-Sheng, 28  
Chiang, Hou-Chi, 0L  
Cho, Hansang, 1P, 2S  
Choi, Kiho, 1C  
Clausi, David A., 2D, 2G  
Cohen, E., 31  
Converse, Alex, 1E  
Coronel Beltrán, Ángel, 2R  
Cozot, Rémi, 0J, 0S  
Cristóbal, G., 2Q  
Cruz-Félix, Angel S., 1T  
Cuevas, Andres, 04  
Curio, Gabriel, 14  
Dai, Wei, 0D  
Davenport, Tim, 07  
De Simone, Francesca, 0R  
Debattista, Kurt, 0U  
Deglinc, Jason, 2D, 2G  
Díaz, Felipe, 0P  
Díaz-Escobar, Julia, 03  
Díaz-Ramírez, Víctor H., 04, 1Q  
Dotan, Y., 31  
Doumanis, Ioannis, 1M  
Dubolazov, O. V., 1Z, 20, 21, 22, 24  
Dufaux, Frederic, 0I, 0R  
Dugelay, Jean-Luc, 06  
Ebrahimi, Touradj, 06, 0G, 0T, 11  
Evert, Jeremy P., 10  
Figuerola, Miguel, 2H, 2K  
Fliegel, Karel, 0X, 27, 2C, 2L  
Frisiello, Antonella, 1M  
Fursoy, Vladimir A., 2J  
Gao, W., 1H  
García-Castillón, Marily Verónica, 2X  
García-Martínez, Pascuala, 04  
Garges, David, 07  
Gaxiola, Leopoldo N., 04  
Ghadiyaram, Deepti, 11  
Gilles, Antonin, 0J  
Gioia, Patrick, 0J  
Golestaneh, S. Alireza, 12  
González-Vega, Arturo, 23  
Grois, Dan, 1A  
Gu, Zhouye, 0F  
Guan, Yudong, 1W  
Gudumasu, Srinivas, 17  
Guo, Chang-liang, 2E, 2U  
Gutierrez-Juarez, Gerardo, 23  
Habart, David, 2F  
Hadar, Ofer, 1F, 31  
Hagan, Martin T., 18  
Han, Jingning, 1E  
Hanhart, Philippe, 0G  
Hatchett, Jonathan, 0U  
He, Yuwen, 0A, 17  
Healy, John J., 2E  
Hernández-Méndez, Arturo, 1T  
Heygster, Georg, 05

Hoyos Yepes, Laura Cristina, 0O  
 Hristova, Hristina, 0S  
 Hu, Chia Chang, 1R  
 Hu, Sudeng, 0Z  
 Huang, T., 1H  
 Huang, Ting-Wei, 0L  
 Hurtado Pérez, R., 2Q  
 Husak, Walt, 0B  
 Jacobs, John, 07  
 Jang, E. S., 1H  
 Janout, Petr, 27  
 Jin, Lina, 0Z  
 Karachevtsev, A. O., 21, 22  
 Karam, Lina J., 12  
 Karczewicz, Marta, 1B, 1D  
 Karnaukhov, Victor, 2I  
 Katsavounidis, Ioannis, 0Z  
 Kazemzadeh, Farnoud, 02, 2D, 2G  
 Kelly, Damien P., 2U  
 Khodadad, Iman, 2D  
 Kiefer, Johannes, 05  
 Kim, J., 1H  
 Kim, Seung-Hwan, 0C  
 King, Emily J., 05  
 Klimt, Martin, 2C  
 Kober, Vitaly, 03, 1Q, 26, 29, 2I  
 Korshunov, Pavel, 06  
 Koval, L. D., 24  
 Kozlov, Sergey V., 2B  
 Krasula, Lukáš, 0X, 27, 2L  
 Krishnan, Madhu, 0D  
 Kukal, Jaromír, 2C  
 Kuo, C.-C. Jay, 0Z  
 Küpçü, Alptekin, 1I  
 Kutcher, Maxim, 1F  
 Kuznetsov, V., 29  
 Kybic, Jan, 2F  
 Lara-Rodríguez, Luis David, 2N, 2O  
 Le Callet, Patrick, 0V, 0X  
 Le Meur, Olivier, 0S  
 Lee, Hunsue, 2S  
 Li, Bin, 19, 1D  
 Li, Edward, 02, 2D  
 Li, G., 1H  
 Li, Xiang, 1B  
 Li, Zhen, 05  
 Li, Zhi, 0Z  
 Lim, Wang-Q, 05  
 Lin, Joe Yuchieh, 0Z  
 Liu, Hongbin, 1B  
 Liu, Kuan-Fu, 1R  
 Liu, Xiang Lian, 1R  
 Liu, Zoe, 1E  
 López-Meléndez, Elizabeth, 2N, 2O  
 López Vélez, Felipe, 08  
 Lorduy Hernandez, Sara, 09  
 Lu, Taoran, 0B  
 Luthra, Ajay, 0F  
 Mahfoodh, Abo-Talib, 1K  
 Maier, Georg, 1A  
 Makovetskii, Artyom, 26, 29  
 Mang, Ou-Yang, 0L  
 Marchuk, Yu. F., 22, 24  
 Marcos, J. Victor, 2Q  
 Marpe, Detlev, 1A  
 Matsushima, Kyoji, 0H  
 McNally, David, 1I  
 McNamee, Joshua, 0U  
 Mekuria, Rufael, 1M  
 Mercer Moss, Felix J., 15  
 Meza, Pablo, 2H  
 Min, Junghye, 1C  
 Minoo, Koohyar, 0F  
 Minzer, O. P., 1Z  
 Miramontes-Jaramillo, Daniel, 1Q  
 Mishourovsky, Michael, 1C  
 Misra, Kiran, 0C  
 Morin, Luce, 0J  
 Mukherjee, Debargha, 1E  
 Müller, Klaus-Robert, 14  
 Munteanu, Adrian, 0K  
 Mustafa, Adnan A. Y., 0N  
 Myakinin, Oleg O., 2B  
 Narwaria, Manish, 0V, 0X  
 Neretin, Evgeny Y., 2B  
 Nguyen, Tuan D., 18  
 Novakovska, O. Yu., 20  
 Okada, Ayumi, 2V  
 Olar, O. I., 22  
 Olar, O. V., 20, 22  
 Padilla-Vivanco, A., 2Q  
 Pan, Janice, 1I  
 Pang, Chao, 1D  
 Park, S., 1H  
 Páta, Petr, 27, 2L  
 Patrón, Verónica A., 2R  
 Pereira Da Silva, Matthieu, 0V  
 Pesquet-Popescu, Beatrice, 0I  
 Pezoa, Jorge E., 2H, 2K  
 Piao, Yinji, 1C  
 Porbadnigk, Anne K., 14  
 Prysazhnyuk, V. P., 20, 21, 22  
 Pu, Fangjun, 0B  
 Puzanov, Anton, 1F  
 Rabell-Montiel, Adela, 23  
 Rapaka, Krishna, 1D  
 Rehman, Abdul, 0Y  
 Reisenhofer, Rafael, 05  
 Řeřábek, Martin, 0G  
 Richter, Thomas, 0T  
 Ruchaud, Natacha, 06  
 Saghrí, John, 07  
 Said, Amir, 1K  
 Saini, Simarjeet S., 2D  
 Santiago-Alvarado, Agustin, 1T  
 Savich, O. V., 20  
 Savich, V. O., 1Z, 21, 22, 24

Saxena, Ankur, 1C  
 Schelkens, Peter, 0I, 0K, 0T  
 Schretter, Colas, 0K  
 Schwarz, Heiko, 1A  
 Segall, Andrew, 0C  
 Shafiee, Mohammad Javad, 02, 2D  
 Sheridan, John T., 2E, 2U  
 Shleifer, A., 31  
 Sidor, M. I., 24  
 Silapasuphakornwong, Piyarat, 2V, 2W  
 Sochenkov, I., 29  
 Sole, Joel, 1D  
 Solorza-Calderón, Selene, 1V, 2M  
 Su, Hui, 1E  
 Subedar, Mahesh M., 12  
 Suh, Sungho, 1P, 2S  
 Sullivan, Gary J., 19  
 Suzuki, Masahiro, 2V  
 Švihlík, Jan, 27, 2C, 2F, 2L  
 Takashima, Youichi, 2V  
 Tapia, Juan J., 04  
 Teng, Yidan, 1W  
 Ti, Chunli, 1W  
 Topiwala, Pankaj, 0D  
 Torii, Hideyuki, 2V  
 Toro Giraldo, Juanita, 2Y  
 Toxqui-Quitl, C., 2Q  
 Tsai, Yu-Hsiang, 0L  
 Uehira, Kazutake, 2V, 2W  
 Unno, Hiroshi, 2W  
 Urcid, Gonzalo, 2N, 2O  
 Ushenko, O. G., 1Z, 21, 24  
 Ushenko, V. O., 20, 22  
 Ushenko, Yu. O., 1Z, 21, 24  
 Valenzise, Giuseppe, 0R  
 Valenzuela, Wladimir E., 2H  
 Vanchuliak, O. Ya., 1Z  
 Veltkamp, Remco C., 1A  
 Villaseñor-Mora, Carlos, 23  
 Vítek, Stanislav, 27, 2L  
 Vokhmintsev, A., 29  
 Voronin, Sergei, 26  
 Wang, Jeng-Yau, 28  
 Wang, Ke, 15  
 Wang, R. G., 1H  
 Wang, Shiqi, 0Y  
 Wang, Zhou, 0Y  
 Wiegand, Thomas, 14, 1A  
 Wong, Alexander, 02, 2D, 2G  
 Wu, Yang, 2U  
 Xing, Yafei, 0I  
 Xiu, Xiaoyu, 0A, 17  
 Xu, Guodong, 1W  
 Xu, Jizheng, 19, 1D  
 Xu, Yaowu, 1E  
 Yan, Yung-Jhe, 0L  
 Ye, Yan, 0A, 17  
 Yea, Sehoon, 1K  
 Yeganeh, Hojatollah, 0Y  
 Yin, Peng, 0B  
 Yuan, Lin, 1I  
 Zakharov, Valery P., 2B  
 Zeng, Kai, 0Y  
 Zerman, Emin, 0R  
 Zhang, Fan, 15  
 Zhang, Li, 1B  
 Zhao, Jie, 0C  
 Zhao, Liang, 2E, 2U  
 Zhao, Xin, 1B  
 Zherdev, Denis A., 2J



# Conference Committee

## *Program Track Chair*

**Khan M. Iffekharuddin**, Old Dominion University (United States)

## *Conference Chair*

**Andrew G. Tescher**, AGT Associates (United States)

## *Conference Program Committee*

**Anne Margot Aaron**, Netflix, Inc. (United States)

**Vasudev Bhaskaran**, Qualcomm Inc. (United States)

**Frederic Dufaux**, Télécom ParisTech (France)

**Touradj Ebrahimi**, Ecole Polytechnique Fédérale de Lausanne  
(Switzerland)

**Arianne T. Hinds**, CableLaboratories (United States)

**C.-C. Jay Kuo**, The University of Southern California (United States)

**Ajay Luthra**, ARRIS Group, Inc. (United States)

**Ofer Hadar**, Ben-Gurion University of the Negev (Israel)

**Andre J. Oosterlinck**, Kuleuven R & D (Belgium)

**Sethuraman Panchanathan**, Arizona State University (United States)

**Yuriy A. Reznik**, InterDigital, Inc. (United States)

**Thomas Richter**, Universität Stuttgart (Germany)

**John A. Saghri**, California Polytechnic State University, San Luis Obispo  
(United States)

**Peter Schelkens**, Vrije Universiteit Brussel (Belgium)

**Gary J. Sullivan**, Microsoft Corporation (United States)

**Mihaela van der Schaar**, University of California, Los Angeles  
(United States)

**Anthony Vetro**, Mitsubishi Electric Research Laboratories  
(United States)

## *Session Chairs*

Signal, Image, and Data Processing Plenary Session

**Khan M. Iffekharuddin**, Old Dominion University (United States)

1 Applications

**Andrew G. Tescher**, AGT Associates (United States)

2 HDR I

**Ajay Luthra**, ARRIS Group, Inc. (United States)

- 3 Digital Holography  
**Peter Schelkens**, Vrije Universiteit Brussel (Belgium)
- 4 Algorithms  
**Touradj Ebrahimi**, Ecole Polytechnique Fédérale de Lausanne  
(Switzerland)
- 5 HDR II  
**Frederic Dufaux**, Télécom ParisTech (France)
- 6 Video Quality Assessment  
**Anne Margot Aaron**, Netflix, Inc. (United States)  
**C.-C. Jay Kuo**, The University of Southern California (United States)
- 7 Applications and Extensions for High Efficiency Video Coding (HEVC)  
**Gary J. Sullivan**, Microsoft Corporation (United States)
- 8 Compression and Processing Issues  
**Vasudev Bhaskaran**, Qualcomm Inc. (United States)  
**Ofer Hadar**, Ben-Gurion University of the Negev (Israel)