

WIO 2016

Workshop on Information Optics Program

| | Monday | Tuesday | Wednesday | Thursday | Friday | |
|--------------------|---|--|--|---|---------------------------------------|---|
| | | Session chair: Dongkyung Nam | Session chair: Rainer Leitgeb | Session chair: Toralf Scharf | Session chair: Adrian Stern | |
| 09:00-09:30 | Registration | Rainer Leitgeb | Y. Fainman- keynote speaker | A. Mahalanobis- keynote speaker | Pepijn Pinkse | |
| 09:30-10:00 | Welcome: A. Carnicer, B. Javidi | Andres Marquez | Enrique Tajahuerce | Simon Thibault | Estela Martín- Badosa | |
| 10:00-10:30 | D. Psaltis - keynote speaker | Bahram Javidi | Adrian Stern | Maria S. Millan | Zeev Zalevsky | |
| 10:30-11:10 | Coffee Break | Coffee Break | Coffee Break | Session chairs: Osamu Matoba, Min-Chul Park | Coffee Break | |
| | Session chair: Estela Martín- Badosa | Session chair: Pedro Andrés | Session chair: M. Martínez- Corral | Poster brief presentations | Coffee Break | |
| 11:10-11:40 | Hans Peter Herzig | David Maluenda | Justo Arines | Poster session | | Session chair: Simon Thibault |
| 11:40-12:10 | Thierry Fournel | Osamu Matoba | Toru Iwane | Poster session | | J. M. Rodriguez- Ramos |
| 12:10-12:40 | Jesper Gluckstad | Dongkyung Nam | Toralf Scharf | Poster session | | Juan Campos |
| 12:50-15:00 | Lunch | Lunch | Lunch | Lunch | Closing | |
| | Session chair: J. M. Rodriguez- Ramos | Session chair: Juan Campos | Session chair: Enrique Tajahuerce | | | |
| 15:00-15:30 | Takashi Inoue | Sergio Saez | Filiberto Pla | | | |
| 15:30-16:00 | Pierre Marquet | Yasuhiro Awatsuji | Manuel Martínez-Corral | | | |
| 16:00-16:30 | Jean-Christophe Olivo-Marin | Jung-Young Son | José A. Rodrigo | | | |
| | 19:30 Welcome dinner | 19:30 Walking tour & tapas | 17:00 Winery tour & | 15:00 Visit to Sitges & beach | | |
| | Welcome dinner | Walking tour & tapas | Conference Banquet | Dinner | | |

Invited speakers

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| Justo Arines | Is wavefront coding an alternative to adaptive optics for retinal imaging? |
| Yasuhiro Awatsuji | 3D image reconstruction of transparent gas flow by parallel phase-shifting digital holography |
| Karl-Heinz Brenner | Verification of Near-field Calculations by Conservation Laws |
| Juan Campos | Beam amplitude and polarization control by liquid crystal cells |
| Yeshaiahu Fainman | Nanoscale Engineering Optical Nonlinearities and Nanoemitters |
| Thierry Fournel | Towards weak optical PUFs by random spectral mixing |
| Jesper Glückstad | Light Robotics: bridging optics with the nano-world |
| Hans Peter Herzig | Optics in 2D, Bloch surface wave phenomena and applications |
| Takashi Inoue | Applications of spatial light modulators in biomedical imaging |
| Toru Iwane | Light-field displays and Light-field Optics |
| Bahram Javidi | Multidimensional Optical Sensing and Imaging for Displays, Computational Imaging, Optical Security, and Healthcare |
| Rainer Leitgeb | Digital aberration correction for in-vivo retinal OCT imaging |
| Abhijit Mahalanobis | Pixel Resolution Improvement using a Sliding Mask |
| Pierre Marquet | Quantitative phase-digital holographic microscopy: a new imaging modality to identify original cellular biomarkers of diseases |
| Andres Marquez | Effective modeling of Pa-LCoS devices and application in data storage in photopolymers |
| Estela Martín-Badosa | Force measurement in the manipulation of complex samples with holographic optical tweezers |
| Manuel Martínez-Corral | Full-parallax immersive 3D display from depth-map cameras |
| David Maluenda | Non-Uniform Polarized Beams: Applications to Optical Encryption |
| Osamu Matoba | Multi-modal Digital Holography for Live Cell Imaging |
| Maria S. Millan | Image quality and security through nonlinear joint transform encryption |
| Dongkyung Nam | Analysis of Blur Characteristics on 3D Displays |
| Jean-Christophe Olivo-Marin | Mathematical Microscopy |
| Pepijn Pinkse | Pushing the limits of single-photon information encoding |
| Filiberto Pla | Range estimation techniques from Integral Imaging |
| Demetri Psaltis | Learning from examples in optical imaging |
| Jose A. Rodrigo | Freestyle laser traps: applications and future outlook |
| José Manuel Rodríguez-Ramos | Real time phase compensation using a Tomographical Pupil Image Wavefront Sensor (TPI-WFS) |
| Sergio Saez | SECPhO: connecting light, with industry |
| Toralf Scharf | Lightfields behind amplitude masks |
| Jung-Young Son | Light fields from digital hologram displays |
| Adrian Stern | A decade of implementation of compressive sensing concepts to optical and imaging systems |
| Enrique Tajahuerce | Imaging through scattering media by microstructured illumination |
| Simon Thibault | Non paraxial light propagation for high resolution imaging |
| Zeev Zalevsky | Super-resolved imager with nanometric resolution based on silicon coated gold nanoparticles |

Poster session

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| Esmail Ahouzi | Optical double phase encryption and spreading techniques applied to color image |
| Merim Nafissa Balas | Iris pattern localization method |
| Vahideh Farzamrad | Detection of Calcium-induced morphological changes on red blood cells by digital holographic microscopy and blinking optical tweezers |
| Wiam Zamrani | Enhanced method to improve the shift tolerance of double random phase encoding |
| Jae Woo Kim | Camera Array Type Plenoptic Moving Picture Acquisition System |
| Julio Serna | Spatial characterization of superposition of coaxial vortex beams |
| Alex Turpin | Conical Refraction to Increase Channel Capacity in Free-Space Optical Communications |
| Cristian Neipp | Analysis of volume holograms using the technique of Green's tensor |
| Juan M. Vilaridy | Effects of using an encrypted image corrupted by noise and occlusion in a security system based on joint transform correlator and Gyrator transform |
| Xiangyu Quan | Live cell imaging of <i>Physcomitrella patens</i> using a multi-modal digital holographic microscope |
| Min-Chul Park | Binary Hologram Generation of Real Objects by Combination of Color and Depth Map |
| André Junker | Structuring the incident and transmitted regions in rigorous coupled-wave analysis |
| J.C. G. de Sande | Propagation of Partially Coherent and Partially Polarized Beams Through Periodic Linear Deterministic Structures. |
| J.C. G. de Sande | Vortex pseudo Schell-model source: A proposal |
| Antonio Marzoa | Comparison of Shack-Hartmann sensor and Point Diffraction Interferometers for Wavefront Aberration analysis |
| Sidi Mohamed Douiri | A Steganographic Method Using Tabu Search Approach |
| Raul Bola | Optical tweezers for force measurements and rheological studies on biological samples |
| Irene Estévez | Single biaxial crystal based polarimeters |
| David Maluenda | Bright Focal Spot with Tunable Polarization and Shape: a Proposal |
| Elisabet Perez-Cabre | First-order and multi-order diffractive lens using a device with 8π phase modulation range |