

## EOS Topical Meeting on Waves in Complex Photonics Media: Fundamentals and Device Applications

4 June 2018 - 7 June 2018, Anacapri, Island of Capri, Italy

Invited talk: 35min talk +10min Q&A

Contributed talk: 15min + 5min Q&A

### Monday June 4

<b>Opening and registration, 9 - 10</b>		
<i>Light in Random Media, 10.00 -12.35</i>		
<b>Ad Lagendijk</b>	<i>Disordered media and photonic crystals</i>	<b>Invited</b>
<b>Sergey Skipterov</b>	<i>Anderson localization of classical waves</i>	<b>Invited</b>
<b>Walter Pfeiffer</b>	<i>Anderson localization of light and perfect absorption in nanotextured absorber layers</i>	<b>Invited</b>
Fabrizio Sgrignuoli	<i>Vector Waves Localization in Aperiodic Vogel Spirals</i>	
<b>LUNCH, 12.35 – 14.00</b>		
<i>Topological phases and novel phenomena, 14.00 – 18.10</i>		
<b>Nader Engheta</b>	<i>Aperiodic Metastructures for Analog Computing</i>	<b>Invited</b>
A. Hack Sjoerd	<i>"Cartesian light": unconventional propagation of light in a 3D crystal of cavities</i>	
Otto Muskens	<i>Extreme scattering and extraordinary nonlinearities of light in complex media</i>	
<b>COFFEE 15.30 - 16.00</b>		
<b>Eric Akkermans</b>	<i>Topological properties of quasi-periodic tilings - From Structure to Spectrum</i>	<b>Invited</b>
Romolo Savo	<i>Invariance of the mean path length in light-scattering media</i>	
<b>Felipe Pinheiro</b>	<i>Applications of the Green's matrix method: from random to aperiodic photonic media</i>	<b>Invited</b>
Sushil Mujumdar	<i>Anderson localization at the Kondo-hybridisation gap in aperiodic plasmonic coupled-resonator waveguides</i>	
<b>WELCOME COCTAIL, 18.30</b>		

**Tuesday June 5**

<i>Disordered nano-optics and novel phenomena, 9.00 -12.35</i>		
<b>Nikolay Zheludev</b>	<i>Metamaterials, anapoles and flying donuts</i>	<b>Invited</b>
<b>Jacob Khurgin</b>	<i>Benefits of disorder in in two-dimensional arrays of metal nanoparticles</i>	<b>Invited</b>
Evgeniy Narimanov	<i>Hyperbolic modes of a metal-dielectric interface</i>	
<b>COFFEE, 10.50 – 11.30</b>		
<b>Tsampikos Kottos</b>	<i>Time-Reversal Symmetry and its Applications to Waveform Shaping and Photonic Limiters</i>	<b>Invited</b>
Lorenzo Pattelli	<i>Massively-parallel calculation of light scattering by large ensembles of spheres</i>	
<b>LUNCH, 12.35 – 14.00</b>		
<i>Disordered devices and novel phenomena, 14.00 – 18.20</i>		
<b>Azriel Genack</b>	<i>Diffusion in Translucent Media</i>	<b>Invited</b>
<b>Mikael Rechtsman</b>	<i>Topological photonics: Weyl points and protected defect modes</i>	<b>Invited</b>
Haiyan Wang	<i>Information encoding in aperiodic volumetric scattering optics</i>	
<b>COFFEE 15.50 - 16.30</b>		
<b>Luca Sapienza</b>	<i>Efficient confinement of visible light in disordered photonic crystals</i>	<b>Invited</b>
<b>Francesco Riboli</b>	<i>Correlation of the Local Density of States in Disordered Photonic Materials</i>	<b>Invited</b>
Simon Félix	<i>Broadband transmission enhancement through an opaque barrier separating symmetric disordered slabs</i>	
<b>DINNER, “Ristorante La Zagara”, Anacapri, 20.30</b>		

## Wednesday June 6

<i>Metamaterials and novel platforms, 9.00 -12.35</i>		
<b>Vladimir Shalaev</b>	<i>Catching Light with Metamaterials</i>	<b>Invited</b>
<b>Alexandra Boltasseva</b>	<i>Emerging materials and approaches for tailorable nanophotonic devices</i>	<b>Invited</b>
Antonio Capretti	<i>Nanophotonic effects in the complex nanostructured morphology of photosynthetic chloroplasts</i>	
<b>COFFEE, 10.50 – 11.30</b>		
<b>Chia Wei Hsu</b>	<i>Transmission eigenchannels in disordered media</i>	<b>Invited</b>
KyeoReh Lee	<i>Direct optical field measurement from a single intensity speckle</i>	
<b>LUNCH, 12.35 – 14.00</b>		
<i>Methods and devices for complex optics, 14.00 – 19.20</i>		
<b>Carlo Forestiere</b>	<i>Spectral Analysis of the Electromagnetic Scattering from Complex Conducting Surfaces</i>	<b>Invited</b>
<b>Igor Tsukerman</b>	<i>Periodic and Non-periodic Structures: Homogenization, Trefftz Functions, Random Matrices</i>	<b>Invited</b>
Simon Labouesse	<i>Random Speckle Illumination Patterns for Compressed Imaging Through a Multimode Fiber</i>	
<b>COFFEE 15.50 - 16.30</b>		
<b>Mark Brongersma</b>	<i>Aperiodic Plasmonic Structures for Spectral Splitting and Photodetection</i>	<b>Invited</b>
<b>Peter Schmelcher</b>	<i>Local Symmetries in Wave Mechanical Systems: From Fundamentals to First Applications</i>	<b>Invited</b>
<b>Concita Sibilila</b>	<i>Effective chiral behavior on self-assembled metasurface by means of linear and nonlinear optical techniques</i>	<b>Invited</b>
Muriel Botey	<i>Field flow control by Complex Media</i>	
Igor Meglinski	<i>Propagation of Laguerre-Gaussian laser beams in turbid tissue-like scattering medium</i>	
<b>POSTER SESSION, 19.20-20.20 (See next page)</b>		

Thursday June 7

<i>Nonlinear complex photonics 9 – 12.15</i>		
<b>Gaetano Assanto</b>	<i>Soliton photonics in nematic liquid crystals</i>	<b>Invited</b>
Jonas Kanngießer	<i>Wavefront Shaping in Complex Spectral Domain Optical Coherence Tomography (CSD-OCT)</i>	
Vito Mocella	<i>Bound States in the Continuum: Spin-Polarized Directive Coupling of Light and Near-Field Amplification</i>	
<b>COFFEE, 10.25 – 10.55</b>		
Fabrizio Sgrignuoli	<i>Direct visualization of the scattering resonances in Complex Prime Arrays of dielectric nanoparticles</i>	
Marie-Christin Angermann	<i>A simple model mimicking the white beetles</i>	
Andre de Lustrac	<i>On-chip Metasurface and Metaline based Hybrid Waveguides for Integrated Optics Applications on Silicon</i>	
Taylor Boyd	<i>Shaping electromagnetic fields using complex dielectric media</i>	

## POSTERS

ID	Presenter	Title
114	Park, Chansuk	<i>Wavefront optimization using ferroelectric liquid crystal spatial light modulator</i>
118	Morfonios, Christian V	<i>Localization and transfer in disordered chains with local centrosymmetry</i>
119	Katsuragawa, Masayuki	<i>Tailored nonlinear optical frequency mixing and its application to optical devices</i>
121	Röntgen, Malte	<i>Edge states and local resonators in binary tight-binding chains</i>
124	Kang, Yuhao	<i>Edge states in disordered topological insulator</i>
126	Huang, Yiming	<i>Measurements and random matrix theory of wave propagation inside random 1D systems</i>
132	Seow, Kai Ling Cheryl	<i>Imaging through random media using translation correlations of scattered light</i>
135	Mujumdar, Sushil A	<i>Direct experimental measurement of lifetime distributions of Anderson localized modes</i>
136	Jákl, Petr	<i>Transmission matrix acquisition of Multimode fiber using multiple internal reference waves</i>
137	Kang, Yuhao	<i>Eigenchannel in index mismatched system</i>
147	Romano, Silvia	<i>Optical Sensing with Large Area Photonic Crystal Metasurfaces supporting Bound States in the Continuum</i>