



Optics for information processing in the 21th century

Wednesday, May 23

20:00: -- Welcome dinner at the Villa

Thursday, May 24

- 9:00 - 9:45 David A.B. Miller – Stanford University
Arbitrary self-configuring linear transforms: optics that designs itself to do anything
- 9:45-10:30 Florent Krzakala - Ecole Normale Supérieure Paris
From Compressive imaging to machine learning using multiple light scattering
- 10:30-11:00 Coffee Break
- 11:00-11:45 Demetri Psaltis – Ecole Polytechnique Fédérale de Lausanne
Teaching optical systems by example
- 11:45-12:30 Kelvin Wagner – University of Colorado Boulder
Convolutional Deep Optical Learning
- 12:30-14:00 Lunch at the Villa
- 14:00-14:45 Yeshaiahu Fainman – University of California San Diego
Nanophotonics for Information Systems
- 14:45-15:30 Riccardo Sapienza – Imperial College London
Photonic networks as a mesoscopic resource for light design
- 15:30-16:00 Coffee Break
- 16:00-16:45 Panel Discussion 1 – *Optics in computing*
- 16:45-17:30 Jason Fleischer – Princeton University
Quantum and quantum-inspired imaging
- 17:30-18:15 Alexander Jesacher – Medizinische Universität Innsbruck
Engineered Image Scanning Microscopy: Combining tailored optical transfer functions with multi-view image reconstruction
- 18:15-20:00 Drink and Poster session
- 20:00: -- -- Conference dinner at the Villa

Friday, May 25

- 9:00 - 9:45 Christophe Moser - Ecole Polytechnique Fédérale de Lausanne
Learning multimode fiber transmission with artificial deep neural networks
- 9:45-10:30 Monika Ritsch-Marte - Medizinische Universität Innsbruck
Holographic multi-colour wavefront shaping for multiplexed optical imaging
- 10:30-11:00 Coffee Break
- 11:00-11:45 Ori Katz – Hebrew University Jerusalem
Imaging with Scattered Light
- 11:45-12:30 Guillaume Maire
Super-resolution in diffraction microscopy: The interest of digital reconstruction
- 12:30-13:30 Lunch at the Villa
- 13:30-14:15 Panel Discussion 2 – *Optics for information processing in imaging*
- 14: 15-15:00 Coffee and Poster session
- 15:00: -- -- Guided city tour
- Dinner downtown on your own

Saturday, May 26

- 9-9:45 Michal Lipson – Columbia University
Next generation photonic components for scalable integrated systems
- 9:45-10:30 Alexander Gaeta – Columbia University
Photonic-Chip-Based Quantum Number Generation and Ising Machine
- 10:30-11:00 Coffee Break
- 11:00-11:45 *Future of OIP & Closing remarks*
- 12:30-14:00 Lunch at the Villa