

Tuesday 30th July

- 15:00 Arrival at the Cumberland Lodge
- 15:40 - 16:00 Opening and welcome
- 16:00 - 17:00 Keynote talk
Sophie Brasselet *Nanoscale polarized imaging in 3D*
- 17:00 - 17:30 Invited talk
Peter Wiecha *Differentiable nano-optics: AI frameworks beyond deep learning*
- 17:30 - 18:00 Coffee break
- 18:00 - 18:20 Contributed talk
Alfonso Nardi *Mesoscopic transport of the second-harmonic light generated by a nonlinear complex medium*
- 18:20 - 18:40 Contributed talk
Filippo Pisano *Peering into the brain through sub-wavelength optical windows*
- 18:45 - 20:30 Dinner
- 20:30 - 21:30 Evening debate
Nina Meinzer and Sylvain Gigan

Complex Nanophotonics Science Camp 2024

Wednesday 31th July

- 9:00 - 9:30 Invited talk
Said Rodriguez *There's plenty of energy in noise*
- 9:30 - 9:50 Contributed talk
Rakesh Arul *Bridging the visible and mid-IR with nano-optics to watch ultrafast vibrational energy cascades*
- 9:50 - 10:10 Contributed talk
Amna Ammar *Limits of Phase-Only Wavefront Shaping in Multimode Fibers*
- 10:10 - 10:30 Contributed talk
Tianrui Zhao *Light focusing through dynamical scattering media with high-speed real-valued intensity transmission matrix*
- 10:30 - 11:00 Coffee break
- 11:00 - 11:30 Invited talk
Yaron Bromberg *Wavefront Shaping of Entangled Photons for Quantum Communication and Quantum Key Distribution*
- 11:30 - 11:50 Contributed talk
Suraj Goel *Multiplexing Indistinguishable Quantum Emitters using Structured Light*
- 11:50 - 12:10 Contributed talk
Alasdair Milne *In-situ bend compensation for holographic micro-endoscopy through flexible photonic lantern fibres*
- 12:30 - 14:00 Lunch
- 14:00 - 15:00 Keynote talk
Romain Quidant *Levitated optomechanics on a chip*
- 15:00 - 15:20 Contributed talk
Sébastien Bidault *Nanoscale Control over Magnetic Light-Matter Interactions*
- 15:20 - 15:50 Coffee break
- 15:50 - 18:30 Poster pitches + poster session 1
- 18:45 - 20:30 Dinner
- 20:30 - 21:30 Evening debate
Jess Wade and Riccardo Henriques

Thursday 1st August

- 9:00 – 9:30 Invited talk
Humeyra Caglayan *All-optical switching in Si-compatible epsilon-near-zero hyperbolic metamaterials*
- 9:30 – 9:50 Contributed talk
Roos de Boer *Continuous-Wave Nonlinearity and Polarization Rotation in a Perovskite Cavity*
- 9:50 – 10:10 Contributed talk
Romain Rescahieres *Open channels and dwell-time eigenstates in resonant disordered media*
- 10:10 – 10:30 Contributed talk
Marco Locarno *In Vivo Plasmonic Enhancement of the Photocycle Dynamics and Fluorescence of Genetically Encoded Voltage Indicators*
- 10:30 – 11:00 Coffee break
- 11:00 – 12:00 Keynote talk
Carsten Rockstuhl *Light scattering in nanophotonic systems*
- 12:00 – 12:30 Invited talk
Sarah Bohndiek *From monitoring the body to monitoring planet Earth – a journey from health science to climate science*
- 12:30 – 14:00 Lunch
- 14:00 – 16:00 **Poster session 2**
- 16:00 – 16:30 Invited talk
Emanuele Galiffi *Wave scattering in time-varying media*
- 16:30 – 16:50 Contributed talk
David Globosits *A Photonic Floquet Scattering Matrix for Wavefront-Shaping in Time-Periodic Media*
- 16:50 – 17:10 Contributed talk
Jaime Echave-Sustaeta *Photon pair creation in photonic time crystals*
- 17:10 – 17:40 Coffee break

- 17:40 – 18:10 Invited talk
Silvia Pujals *Single molecule localization microscopy methods for nanomedicine*
- 18:10 – 18:40 Invited talk
Matthieu Bellec *Photonics in laser-structured complex media*
- 18:45 – 20:30 Dinner

Friday 2nd August

- 9:00 – 9:20 Contributed talk
Jamie Guggenheim *Photoacoustic memory imaging – a novel technique for non-invasive imaging deep behind scattering layers*
- 9:20 – 9:40 Contributed talk
Yijie Zheng *Neural Networks for dynamic transmission matrices recovery in optical fibre imaging*
- 9:40 – 10:00 Contributed talk
Jérôme A. Don Jayamanne *How to characterize dynamic media in the multiple scattering regime with Photon Doppler Velocimetry?*
- 10:00 – 10:20 Contributed talk
Ernesto Pini *Resolving light transport in structurally anisotropic media*
- 10:20 – 10:50 Coffee break
- 10:50 – 11:10 **Luis Alberto Razo Lopez** *Experimental observation of 3D strong electromagnetic wave localization in Vogel spirals*
- 11:10 – 11:30 Contributed talk
Niklas Rocca Schwarz *Polymer-based non-iridescent photonic pigments*
- 11:30 – 11:50 Contributed talk
Kiarash Kasaian *Label-free imaging and 3D single particle tracking in complex media via interferometric scattering microscopy (iSCAT)*
- 12:10 – 12:30 Closing remarks and best talk/poster awards
- 12:30 – 13:30 Lunch
- 14:00 Departure from Cumberland Lodge