

8th International Conference on Optical Angular Momentum – ICOAM 2026

Alte Universität Graz, Hofgasse 14, 8010 Graz, Austria · June 15–19, 2026



Monday, the 15th	Tuesday, the 16th	Wednesday, the 17th	Thursday, the 18th	Friday, the 19th
Chair: Sonja Franke-Arnold	Chair: Karen Patricia Volke Sepulveda	Chair: Allison Yao	Chair: Robert Fickler	Chair: Ebrahim Karimi
09:00–09:25 Welcome Address	09:00–09:25 Halina Rubinsztein-Dunlop Optical Angular Momentum in Optical Micromanipulation and Quantum Sensing	09:00–09:25 Bereneice Sephton Structuring light into interferometers for three-dimensional imaging	09:00–09:25 Michael Berry Wave trajectories, quantum potential, superscillations: Madelung, de Broglie, Newton	09:00–09:25 Stephen Barnett Optical torques in the focusing of light
09:25–09:50 Cade Peters / Andrew Forbes Leveraging optical topologies to see and communicate through random channels	09:25–09:50 Andrea Aiello Counterfactual reasoning does not affect Bell's theorem	09:25–09:50 Carmelo Rosales-Guzman Structured light-based optical metrology	09:25–09:50 Ebrahim Karimi Structured Quantum Light for High-Dimensional Quantum Information	09:25–09:50 Mark Dennis Euler-top Gaussian beams: Structured Modes Beyond Separation of Variables
09:50–10:15 Natalia Litvinchuk Optical Skyrmions Across Scales: From Spatiotemporal Structured Light to Nanoscale Topological Fields	09:50–10:15 Qiwen Zhan Topology with Spatiotemporally Sculptured Light	09:50–10:15 Takashi Omatu Materials manipulation with optical skyrmions	09:50–10:15 Lorenzo Marrucci Superscillations and conservation laws in structured light	09:50–10:15 Mark Main Structured Light for Multi-Scale Sensing
10:15–10:40 Yijie Shen Meta-photonics topologies for multidimensional communications	10:15–10:40 David Andrews Optical Angular Momentum and a Multiplicity of Multipoles	10:15–10:40 Charles Roques-Carnes Separating partially coherent light	10:15–10:40 Francisco J. Rodríguez-Fortuño Electromagnetic bispinor in different bases and the energy symmetry sphere	10:15–10:40 Filippo Romanato Metasurfaces for Structured Light: Generation, Sorting, and Topological Control of Vector Beams
10:40–11:10 Coffee Break	10:40–11:10 Coffee Break	10:40–11:10 Coffee Break	10:40–11:10 Coffee Break	10:40–11:10 Coffee Break
Chair: Andrew Forbes	Chair: Monika Ritsch-Marte	Chair: Marko Šimić	Chair: Lorenzo Marrucci	Chair: Jonathan Leach
11:10–11:35 Monika Ritsch-Marte A stroll down OAM lane: From Acoustics to Optics and back again	11:10–11:35 Gerd Leuchs A clear operational distinction between quantum and classical entanglement	11:10–11:35 Eileen O'Keefe Revealing micro- and nano-dynamics through the spatiotemporal structure of light	11:10–11:35 Jörg Götze Bounds on Delocalisation in the Angular Talbot Effect	11:10–11:35 Mehul Malik Programming quantum measurements of time inside a multi-mode fibre
11:35–12:00 Kostya Bliokh Topological waveforms and manipulation of particles: From nanooptics to ocean waves	11:35–12:00 Robert W. Boyd TBA	11:35–12:00 Yuri Gorodetski Spatio-Temporal Weak Measurement of Structured Pulses	11:35–12:00 Oliver Heckl Towards Probing New Physics in the Mid-Infrared	11:35–12:00 Kiki Dekkers Observing High-Dimensional Nonlocality Bell Inequality Violations using Multi-Outcome Spectral Measurements
12:00–12:25 Etienne Brasselet Agile light-matter topological interplay using self-engineered liquid crystals textures	12:00–12:25 Alan Willner Longitudinally Structured Beams for Communications and Sensing	12:00–12:25 Thomas Juffmann Optical Near-field Electron Microscopy (ONEM): Damage-free, label-free super-resolution imaging of interfaces	12:00–12:25 Marco Orriogotti Geometric Aspects of Vector Beams and Jones Calculus	12:00–12:25 Stefan Rotter Structured Waves for Micro-Manipulation and Information Flow
12:25–12:50 Kelsey Everts Metasurface-generated spatiotemporal vector beams and their invariance in complex media	12:25–12:50 Robert Fickler Volumetric Processing of Structured Light Integrated in Glass	12:25–12:50 Ulrich Hohenester The workbench of optofluidic force induction	12:25–12:50 Enrique Galvez Laboratory Astrophysics with Complex Light: Gravitational lensing diffraction of gravitational waves	12:25–12:50 Harald Gießen / Julian Schwab Discovery of phonon-polaritonic skyrmions: Transition from bubble- to Néel-type
13:00–14:00 Lunch Break	13:00–14:00 Lunch Break	13:00–14:00 Group Photo / Lunch Break	13:00–14:00 Lunch Break	13:00–13:20 Closing, Awards
Chair: Eileen O'Keefe	Chair: Jian Wang		Chair: Kayn Forbes	13:20–14:00 Lunch Break
14:00–14:25 Carlos Hernández-García Attosecond Structured Light: From Angular Momentum Engineering to Topological Harmonic Spectroscopy	14:00–14:25 Siddharth Ramachandran Topologically complex light transported by topological confinement		14:00–14:20 Fazliah Nothlawala Measuring relativistic motion using orbital angular momentum of entangled photons	
14:25–14:50 Kayn Forbes Spin from spinless light: Topological and non-paraxial generation of optical spin	14:25–14:50 Christian Schmiegelow Super rotational Doppler shifts measured with single ion probe		14:20–14:40 Andrei Afanasev Three-Dimensional Optical Spin in Vacuum and in Chiral Matter	
14:50–15:15 Antonio Khouy Informationally complete orbital angular momentum tomography with intensity measurements	14:50–15:15 Vincenzo D'Ambrosio Tailoring photonic correlations with quantum interference		14:40–15:00 Linqiao Gan Spin-angular-momentum-multiplexed optoacoustic light storage	
15:15–15:50 Jian Wang Towards Robust Structured Light Communications	15:15–15:50 Mohamed Babiker Quantum optics in phase-front-controlled Poincaré modes		15:00–15:20 Koni Mwezi A quantum topological switch for entangled and single-photon skyrmions	
15:50–16:20 Coffee Break	15:50–16:20 Coffee Break		15:20–15:40 Tareq Jaouni Full-Field Mode Sorter for Optical Knots	
Chair: Yijie Shen	Chair: Bereneice Sephton		15:40–16:00 Coffee Break	
16:20–16:45 Karen Patricia Volke Sepulveda Engineering wave structure for acoustic manipulation	16:20–16:45 Allison Yao Novel Petal Beams for Control of Light & Ultracold Atoms	14:00–20:00 Free Afternoon – Exploring Graz	Chair: Sarah Lindner	
16:45–17:10 Miguel Alonso Commensurate harmonic oscillators: bichromatic polarization and modal distributions	16:45–17:10 Sonja Franke-Arnold Optical activity of atomic vapours in topological light		16:00–16:20 Margarita Khokhlova Chiral Stark shifts – tweezing molecules in an enantiofashion	
17:10–17:35 Filippo Cardano Free-space photonic circuits for spatially structured light	17:10–17:35 Gabriel Molina-Teriza Improving optical trapping with angular momentum and helicity beams		16:20–16:40 Dmitry Kartovtsev Generation and manipulation of relativistic vortex particles at accelerator facilities	
			16:40–17:00 Riaan Schmidt Probing the isolated vector magnetic field of structured laser beams by atoms	
			17:00–17:20 Alex Vernon Novel topological and geometric features of light's electric-magnetic space	
			17:20–17:40 Michael de-Oliveira Programming Nonlinear Optical Responses with Structured Light	
			18:30–20:00 Poster Session II Best Poster Award Sponsored by WILEY	
18:30–20:00 Poster Session I Poster Session and Best Poster Award Sponsored by AIP				