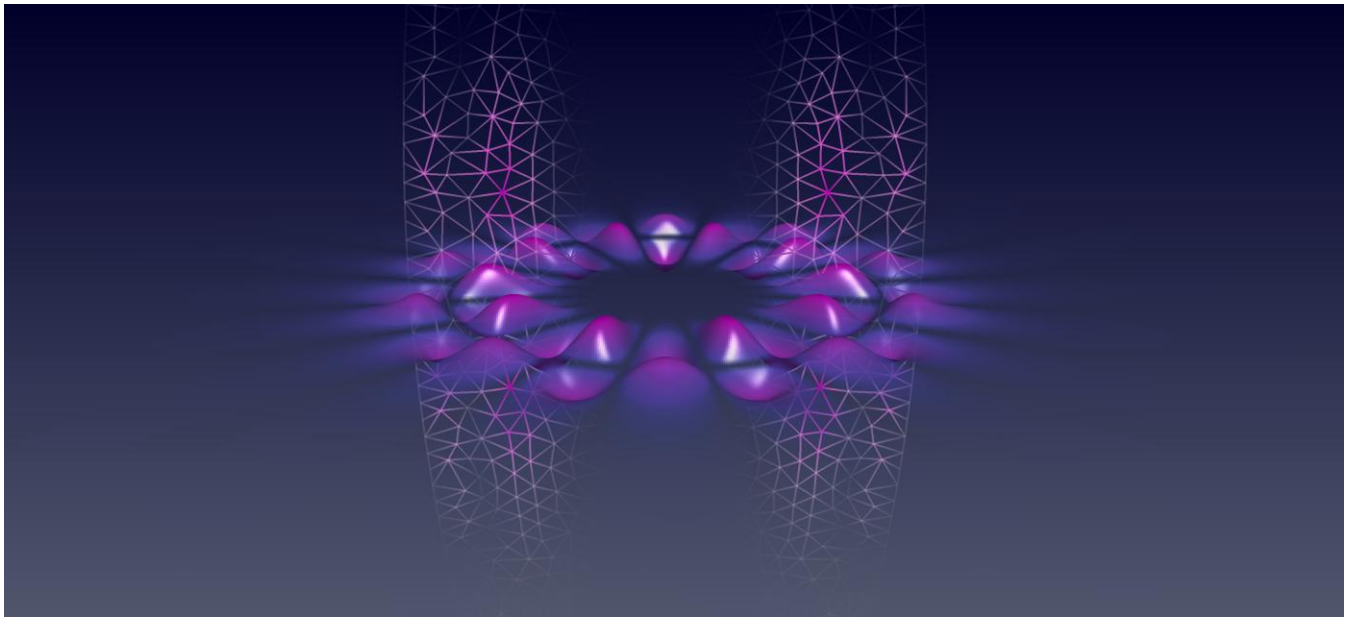
18th Annual Meeting
Photonic Devices

AMPD2026



Date: 28-30 April 2026
Location: Zuse Institute Berlin, Germany

Venue

Zuse Institute Berlin
Takustraße 7
14195 Berlin
Germany

Organizers

The Annual Meeting Photonic Devices is organized by members of the Computational Nano Optics group.
www.zib.de/cno

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ZUSE INSTITUTE BERLIN

Tuesday

From	Speaker	Affiliation	Title
08:30	**Coffee**		
09:00	Sven Burger	Zuse Institute Berlin	Opening
09:15	Nahid Talebi	Kiel University	Optical Signatures of Quasi-Particle Interactions in Hybrid Material Systems Probed with Light and Electron Beams
09:45	Stephan Reitzenstein	Technische Universität Berlin	Single-quantum-dot devices for photonic quantum technologies: Numerical optimization, deterministic nanofabrication, and application perspectives
10:15	Christiane Becker	Helmholtz-Zentrum Berlin für Materialien und Energie	The multiple benefits of nanotextures in flexible solar cell devices
10:30	Kristina Friziuk	Karlsruhe Institute of Technology	Pancharatnam-Berry phase for vortex beams
10:45	**Coffee Break**		
11:15	Antonio Calà Lesina	Leibniz Universität Hannover	Advances in inverse design for metaphotonics
11:45	Evgeniy Levdik	University of Siena	Global Topology Optimization of a Bayer Color Sorter Using Machine Learning
12:00	Jérémy Itier	Institut Fresnel, Marseille	A generalized perturbative approach for the computation of nonlinear scattering problems
12:15	**Lunch Break**		

Tuesday

From	Speaker	Affiliation	Title
14:00	Philip Trøst Kristensen	Technical University of Denmark, Lyngby	Recent applications of quasinormal modes in nanophotonics
14:30	Jan David Fischbach	Karlsruhe Institute of Technology	Resonant states reveal strong light-matter coupling in nanophotonic cavities
14:45	Fridtjof Betz	Zuse Institute Berlin	Resonance expansion of photonic observables
15:00	August Joan Otto Röell	AMOLF, Amsterdam	Understanding Information through a Decomposition into Poles and Zeros
15:15	Robert Meiners Fuchs	Technische Universität Berlin	Quantum optics of multiple quasinormal mode cavities with finite retardation and rigorous, numerically calculable coupling elements
15:30	**Coffee Break**		
16:00	Battulga Munkhbat	Technical University of Denmark, Lyngby	Nanoengineered transition metal dichalcogenides for quantum photonics: Generation, interference, and detection of single photons
16:30	Thomas Christopoulos	University of Bordeaux	Modal analysis of resonators: MAN software expansion to 2D materials and coupled systems and introduction of MANlite
16:45	Julius Kullig	Otto-von-Guericke-Universität Magdeburg	When lower-Q modes lase first: An exceptional-point-induced mode switching
17:00	**Poster Session**		
	Pizza and drinks at Zuse Institute Berlin		
19:30	**End of Day**		

Tuesday Poster Session

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Nr.	Speaker	Affiliation	Title
1	Anna Barkova	Zuse Institute Berlin	Optimization of efficiency of solar cells
2	Klaus Jäger	Helmholtz-Zentrum Berlin für Materialien und Energie	Photovoltaic Solar Cells – The Role of Photonics
3	Tom Hein	Brandenburgische Technische Universität Cottbus-Senftenberg	Numerical investigations of resonant absorption in hybrid Ag/Ge honeycomb-like nanotriangle lattices
4	Guilherme Carraro Carella	Humboldt-Universität zu Berlin	Disontinuous Galerkin Time-Domain simulations of light scattering by CuFeS2 spherotetrahedrons
5	Sam Fairman	Physikalisch-Technische Bundesanstalt (PTB), Berlin	Near-Field Microscopic Investigation of Nanoparticles
6	Christian Schwemmer and Mostafa Kotkat	Fraunhofer-Institut für Integrierte Systeme und Bauelementetechnologie IISB	Boosting light extraction from Si vacancy color centers in SiC
7	Daniel Grom	Otto-von-Guericke-Universität Magdeburg	Numerical analysis of microring and waveguide modes in three-dimensional distributed Bragg reflector structures
8	Reza Mahani	Ferdinand-Braun-Institut, Berlin	Full-Spectrum Prediction in Bragg Grating Design
9	Thomas Christopoulos	University of Bordeaux	A temporal coupled-mode theory framework for light emitting metasurfaces
10	Felix Binkowski	Zuse Institute Berlin	Resonance expansion for high Purcell enhancement in all-TMDC nanoresonators
11	Wenhua Zhao	Max-Born-Institut & Humboldt-Universität zu Berlin	EELS and CL for swift electrons passing by nanoparticles
12	Paul Oleynik	Brandenburgische Technische Universität Cottbus-Senftenberg	Metrology for Ge metasurfaces on a Si photonics platform for applications in multispectral short-wave-infrared photodetection
13	Géza Szántó	Centre for Energy Research, Budapest	Analysis of roughness effects in ellipsometry via 3D FEM simulations
14	Chao Zeng	Centre for Energy Research, Budapest	Geometry-Dependent Ellipsometric Signatures from Ultrathin Adsorption Layers on Gold Nanostructures
15	Winnie Pfeiffer	Freie Universität Berlin	Controlling Coupling Strength and Field Localization in Plasmonic Supercrystals with Polyhedral Building Blocks
16	Cem Sanga	Paul Drude Institute, Berlin	Computational Analysis of the Chemical Treatment-Induced Indirect-to-Direct Bandgap Transition in MoS_2

Wednesday

From	Speaker	Affiliation	Title
09:30	Anna Musial	Wroclaw University of Science and Technology	Photonic structures for quantum dots emitting in telecommunication spectral range
10:00	Rémi Colom	Université Côte d'Azur, CNRS	Effective refractive index achromatic metasurfaces: how large and efficient can they be?
10:15	Günter Kewes	Humboldt-Universität zu Berlin	On a misconception in classical Maxwell simulations with effective media: cavity + resonant medium are no coupled oscillators
10:30	Xavier Zambrana-Puyalto	Technical University of Denmark, Lyngby	Reflection-based method for measuring the in-plane refractive index of vdW materials
10:45	**Coffee Break**		
11:15	Simone Zanotto	CNR Istituto Nanoscienze, Pisa	Retrieving colors hidden in a grey Fabry-Pérot cavity through coherent perfect absorption
11:30	Peter Petrik	Centre for Energy Research, Budapest	Optical modeling and related process monitoring approaches for plasmonic nanostructures
11:45	Humeyra Caglayan	Eindhoven University of Technology	Meta-optical processors for broadband complex-field image operations
12:15	**Lunch Break**		

Wednesday

From	Speaker	Affiliation	Title
14:00	P. Elli Stamatopoulou	Karlsruher Institut für Technologie	Electron-beam spectroscopy simulations using the T-matrix method
14:30	Ulrich Hohenester	University of Graz	Simulation of EELS in nanophotonics using the nanobem toolbox
14:45	Lin Zschiedrich	JCMwave GmbH, Berlin	NVIDIA GPU-Based Direct Solvers: Applications to Maxwell's Equations
15:00	Parmenion Mavrikakis	École Polytechnique Fédérale de Lausanne (EPFL)	Modeling Light Scattering in Layered Media with an Accurate Surface Integral Equation Framework
15:15	**Activity**		Start at ZIB Visit of Gedenkstätte Berliner Mauer and Bernauer Straße
18:00	**Workshop Dinner**		Gugelhof, Knaackstraße 37, 10435 Berlin

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Thursday

From	Speaker	Affiliation	Title
09:30	Mehdi 'Arash' Feizpour	Vrije Universiteit Brussel	Photonics-Enhanced Sensing: From Nano-Structure Design to Real-World Applications
10:00	Verena Kowallik	Technische Universität Berlin	Investigation of optical losses in the UVC spectral range in AlGaN-based multimode waveguides using photonic integrated circuits and ray tracing simulations
10:15	Felix Hitzelhammer	University of Graz	Stochastic Modeling of Photon Correlations from Single Quantum Emitters
10:30	Lilli Kuen	Weierstrass Institute (WIAS), Berlin	Time dependent simulations of PCSELs and analysis of PC features
10:45	**Coffee Break**		
11:15	Francesco Michelotti	Sapienza Università di Roma	Time resolved anisotropic fluorescence emission and photobleaching of organic dye conjugated proteins in proximity of one dimensional photonic crystals
11:30	Gabriela Luna Amador	Freie Universität Berlin	Damping in Plasmonic Nanoparticle Supercrystals
11:45	Jonas Schaible	Helmholtz-Zentrum Berlin für Materialien und Energie	Inverse Design of Multilayer Thin-Films using Robust Deep Learning
12:00	Ye-Chao Liu	Zuse Institute Berlin	Prescriptive preparation and verification of nonstabilizer states
12:15	Manfred Hammer	Paderborn University	Mode hybridization in thin-film lithium niobate channel waveguides
12:30	**Closing Remarks**		
12:45	**End of Workshop**		**Lunch**

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