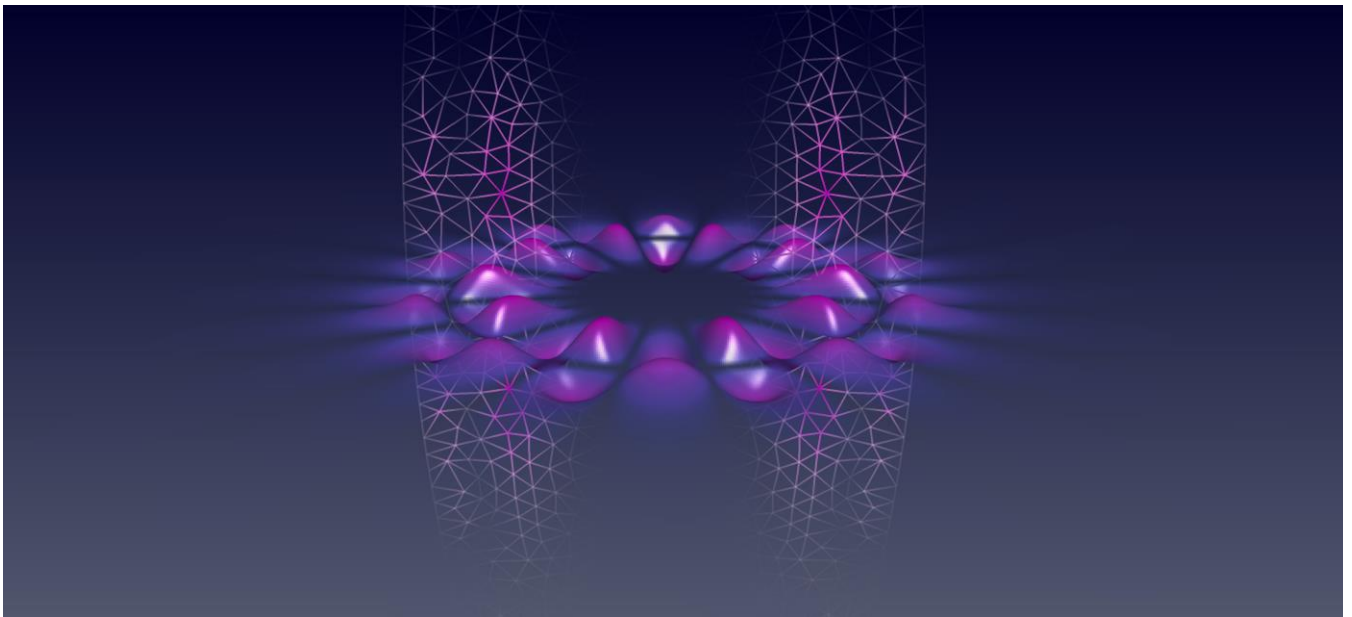


16th Annual Meeting Photonic Devices

AMPD2024



Date: 17-19 April 2024
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

Wednesday

From	Speaker	Affiliation	Title
09:00	Coffee		
10:00	Sven Burger	Zuse Institute Berlin	Opening
10:15	Carsten Rockstuhl	Karlsruher Institut für Technologie	A Multi-Scale Approach to Simulate the Optical Response of Molecular Nanomaterials (invited)
10:45	Álvaro Rodríguez Echarri	Max-Born-Institut, Berlin	Progress in the linear and nonlinear optical response of atomically thin films
11:00	Dan-Nha Huynh	ANSYS Germany GmbH	Efficient modelling and simulation of the metalens response
11:15	Phillip Manley	JCMwave GmbH, Berlin	Getting Right & Left Right: The Curious Case of the Semi-Infinite Step
11:30	Lunch Break		
13:00	Femius Koenderink	AMOLF Institute, Center for Nanophotonics, Amsterdam	Resonant nanophotonics & computational reconstruction for sensing and metrology (invited)
13:30	Alberto Curto	University of Gent	Chiral sensing with semiconductor nanophotonics (invited)
14:00	Julius Kullig	Otto-von-Guericke Universität Magdeburg	Waveguide-coupled microring cavities for higher-order exceptional points
14:15	Felix Binkowski	Zuse Institute Berlin	Efficient and accurate computation of eigenfrequency sensitivities near exceptional points
14:30	Coffee Break		

Wednesday

From	Speaker	Affiliation	Title
15:15	Kevin M. McPeak	Louisiana State University	Resonant Plasmonic-Biomolecular Chiral Sensing in the Far-Ultraviolet (invited)
15:45	Unai Arregui Leon	Politecnico di Milano	Phonon-enhanced nonlinear THz generation in all-dielectric nanostructures
16:00	Yevgen Grynko	University of Paderborn	3D Anderson localization of light in disordered systems of dielectric particles
16:15	Robert Fuchs	Technische Universität Berlin	Quantization of spatially separated open cavities using optical quasinormal modes
16:30	Markus Wess	Technische Universität Wien	Mass-Lumped High-Order Cell Methods for Time-Dependent Maxwell Equations
16:45	Poster Session		
	Pizza and drinks at Zuse Institute Berlin		
19:00	End of Day		

16th Annual Meeting Photonic Devices
 AMPD2024
 17-19 April 2024

Wednesday
 Poster Session



Nr.	Speaker	Affiliation	Title
1	Onder Karakilinc	Pamukkale University, Turkey	Enhancement of self-collimation effect by symmetry breaking in hexagonal lattice photonic crystals
2	Wenhua Zhao	Humboldt-Universität zu Berlin	Spatio-temporal resolution of plasmons in nanostructures excited with swift electrons
3	Gino Wegner	Humboldt-Universität zu Berlin	Impact of geometry and material models on extinction and near-field properties of plasmonic nanostructures
4	Manfred Hammer	University of Paderborn	Leakage suppression for TM modes in optical waveguides with shallow etching
5	Jonas Grumm	Technische Universität Berlin	Microscopic theory of the non-linear THz response of thin gold films
6	Paul Oleynik	BTU Cottbus - Senftenberg	Strong optical coupling of lattice resonances in a top-down fabricated hybrid metal-dielectric Al/Si/Ge metasurface
7	Lara Greten	Technische Universität Berlin	2D Semiconductor-Plasmonic Hybrids: Exciton Localization and Strong Coupling
8	Henna Farheen	University of Paderborn	Asymmetric horn antennas for optical phased arrays
9	Jonas Schaible	Helmholtz-Zentrum Berlin	On aesthetical appearance of colored perovskite solar modules
10	Panagiota Elli Stamatopoulou	Karlsruhe Institute of Technology	Analytic methods in EEL and CL spectroscopy
11	Shivaji Kasireddy	German Aerospace Center, Ulm	Investigation on efficient outcoupling of single photons from silicon carbide color center
12	Xin Gong	Engionic Femto-Gratings GmbH	Femto second laser micro processing
13	Domenica Bermeo Alvaro	Ferdinand-Braun-Institut gGmbH	Hetero-integration of diamond nanostructures on AlGaIn-based photonic circuits
14	David Hähnel	University of Paderborn	Extremely High Third Harmonic Generation in Dielectric Metasurfaces with a New Multi-Mode Fano-Resonance Approach
15	Léo J. Roche	Technische Universität Berlin	Numerical Investigation of the Evanescent Coupling between a WGM Micropillar Resonator and a Ridge Waveguide
16	Reza Mahani	Ferdinand-Braun-Institut gGmbH	Particle-swarm optimization of a plasmonic polarization converter
17	Nigar Asadova	Karlsruhe Institute of Technology	Inverse design of metasurfaces using T-matrix approach
18	Marcel Wack	Technische Universität Berlin	Quantum automorphism groups of matroids
19	Ivan Sekulic	JCMwave GmbH, Berlin	Machine-learning driven design of metasurfaces: learn the physics and not the objective
20	Lilli Kuen	JCMwave GmbH, Berlin	VCSELs with monolithic high contrast gratings - a numerical far-field study
21	Gabriela Luna Amador	Freie Universität Berlin	Optical Properties of Plasmonic Supercrystals
22	Sven Burger	Zuse Institute Berlin	Efficient computation of resonances and optical response functions by solving scattering problems in the complex frequency plane
23	Daniel Jiménez	Martin-Luther-Universität Halle-Wittenberg	Optical Simulations of Light Management in Ultrathin Cu(In,Ga)Se ₂ Solar Cells with Nanotextured Back Contacts

From	Speaker	Affiliation	Title
09:00	Lei Xu	Nottingham Trent University	Nonlinear metasurfaces for near-infrared imaging (invited)
09:30	Domenico de Ceglia	University of Brescia	Nonlinear nonlocal flat-optics for signal processing (invited)
10:00	David Lemli	University of Münster	Optimizing Nanophotonic Devices with Learned Proposal Distributions in Simulated Annealing
10:15	Ya Yan Lu	City University of Hong Kong	Bifurcation Theory of Bound States in the Continuum
10:30	Coffee Break		
11:00	Silvia Vignolini	Max Planck Institute of Colloids and Interfaces, Potsdam	Self assembled chiral plasmonic structure via bio templating (invited)
11:30	Thomas Pertsch	Friedrich Schiller University Jena	Entanglement generation by nanoscale photonics (invited)
12:00	Francesco Michelotti	Sapienza Università di Roma	Exploiting the properties of electromagnetic states bound at the surface of 1D photonic crystals for label-free and fluorescence detection of biomarkers in human serum
12:15	Leonhard M. Lohr	Physikalisch-Technische Bundesanstalt, Berlin	Nanostructure characterization with soft X-rays in a hybrid approach
12:30	Lunch Break		
13:45	Activity		Visit High-Performance Computer System at Zuse Institute Berlin
14:45	Coffee Break		

Thursday

From	Speaker	Affiliation	Title
15:30	Rémi Colom	CRHEA, CNRS, Université Côte d'Azur	Phase singularities in resonant metasurfaces (invited)
16:00	Fridtjof Betz	Zuse Institute Berlin	Rational approximation in nanophotonics
16:15	Jan David Fischbach	Karlsruher Institut für Technologie	Resonance Expansion of Scattering Coefficients by Analytic Continuation
16:30	Xavier Zambrana- Puyalto	DTU Denmark	Determination of the Q factor of Mie modes as a function of its complex refractive index
16:45	Günter Kewes	Humboldt- Universität zu Berlin	Tiny Drude particle as coherently scattering emitter in Maxwell simulations
17:00	End of Day		
18:30	Workshop Dinner		Restaurant Nea Olympia, Unter den Eichen 88, 12205 Berlin , (The food has already been paid for, everyone pays for the drinks themselves)

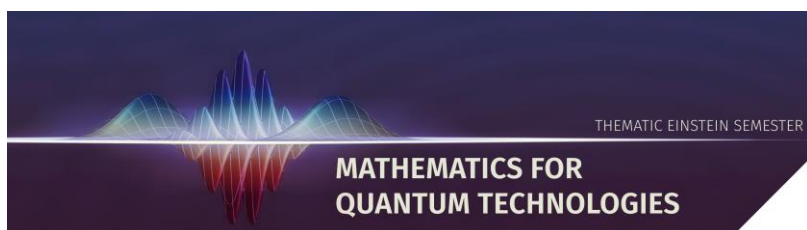
Friday

From	Speaker	Affiliation	Title
09:30	Julian Bopp	Humboldt-Universität zu Berlin	'Sawfish' Photonic Crystal Nanostructures for Near-Unity Emitter-to-Waveguide Coupling (invited)
10:00	Felix Tebbenjohanns	Humboldt-Universität zu Berlin	Torsional motion of a tapered optical fiber
10:15	Dinghe Dai	Physikalisch-Technische Bundesanstalt, Berlin	FEM-Simulations Exploring Contrast Mechanisms in Single Core-Shell Nanoparticles Using s-SNOM
10:30	Coffee Break		
11:00	Thomas Christensen	Technical University of Denmark, Lyngby	How common is photonic band topology? (invited)
11:30	Gian Marcello Andolina	College de France, Paris	Surface-response formalism for quantum-corrected electrodynamics in metallic nanostructures (invited)
12:00	Maria Moreno-Cardoner	University of Barcelona	Minimalistic efficient quantum devices build of dipole coupled nano arrays of quantum emitters (invited)
12:30	Lunch Break		

Friday

From	Speaker	Affiliation	Title
14:00	Carsten Henkel	Universität Potsdam	Modelling from metals to molecules - photonics at the 10nm canyon (invited)
14:30	Dominik Lentrodt	Universität Freiburg	Pseudomodes models for cavity QED
14:45	Klaus Jäger	Helmholtz-Zentrum Berlin	Optical simulations of all-perovskite tandem solar cells with periodic textures and a thick glass superstrate
15:00	Gerardo Silva-Oelker	Universidad Mayor, Santiago, Chile	Design of Selective Thermal Emitters for Energy Applications
15:15	Arseniy Epishin	Freie Universität Berlin	Theory of plasmon-polaritons in binary metallic supercrystals
15:30	Closing Remarks		
15:45	End of Workshop		

Supported by



Einstein Stiftung Berlin
Einstein Foundation Berlin

Berlin Mathematics Research Center

