

Thursday

12th Annual Meeting Photonic Devices
February 14-15, 2019



From	Speaker	Affiliation	Title
10:00	Sven Burger	Zuse Institute Berlin	Opening
10:15	Bert Hecht	Universität Würzburg	Near-field strong coupling of a single emitter to a plasmonics nano resonator at room temperature (invited)
10:45	Alexander Govorov	Ohio University	Photonics of Hybrid Nanostructures and Bio-assemblies: Coherent Transfer of Plasmons, Hot Electrons and Chirality (invited)
11:15	Friedhard Römer	Universität Kassel	Simulation of plasmonic responsivity enhancement in GeSn-nanoisland photodetectors
11:30	Christiane Becker	Helmholtz-Zentrum Berlin	Nanophotonic enhanced multi-photon excited photoluminescence of perovskite quantum dots
11:45	Lunch Break		
13:15	Stefanie Kroker	TU Braunschweig & Physikalisch-Technische Bundesanstalt, Braunschweig	Modeling Aspects for optical bulk and metasurfaces in high-precision metrology (invited)
13:45	Tim Käseberg	Physikalisch-Technische Bundesanstalt, Braunschweig	Design concepts for sensing of nanoscale features by enhanced near-field to far-field coupling
14:00	Theresa Höhne	Zuse Institute Berlin	Investigation of Waveguide-based On-Chip Single-Photon Sources with Finite Elements
14:15	Gunter Larisch	Chinese Academy of Sciences, Changchun	Photon Lifetime Modelling in VCSELs: A tool for increasing energy efficiency and achieving ultra-high bit rates
14:30	Coffee Break		Group photo outside, Tour to the HLRN Supercomputer at Zuse Institute Berlin

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From	Speaker	Affiliation	Title
15:45	Guillaume Demésy	Institut Fresnel, Marseille	Modal analysis in dispersive and open photonic structures (invited)
16:15	Thomas Weiss	Universität Stuttgart	How to calculate the pole expansion of the optical scattering matrix from the resonant states (invited)
16:45	Philip Kristensen	Humboldt-Universität zu Berlin	Roughness calculations in nanophotonics and applications in QNM modeling
17:00	Lin Zschiedrich	JCMwave GmbH, Berlin	Contour integral methods for optical resonance expansion: Computing eigenvalues without eigensolver
17:15	Coffee Break		
17:45	Andreas Erdmann	Fraunhofer IISB, Erlangen	Characterization and mitigation of 3D mask effects in extreme ultraviolet lithography (invited)
18:15	Klaus Jäger	Helmholtz-Zentrum Berlin & Zuse Institute Berlin	Perovskite-silicon tandem solar cells with nanophotonic structures
18:30	Poster Session		Buffet and drinks at Zuse Institute Berlin
21:00	End of Day 1		

Poster Session 18:30

Nr.	Speaker	Affiliation	Title
1	Athira Kuppadakkath	Universität Jena	2D-Nanoparticles as Fluorescence Markers for Adaptive Microscopy in Scattering Media
2	Jon Schlipf	Technische Universität Cottbus-Senftenberg	Concepts for Integrated Biosensing: Surface Plasmon-Enhanced Group-IV Photodetectors
3	Vishal Vashistha	Adam Mickiewicz University Poznan	All dielectric Si nanoresonator based color filters
4	Anna Pappa	Freie Universität Berlin	Towards the quantum internet using photonic devices
5	Lilli Kuen	Technische Universität Berlin	Time Domain Simulations with Perfectly Matched Layer Using a Hybrid Update Scheme
6	Marine Froidevaux	Technische Universität Berlin	Model order reduction of 2D photonic crystals
7	Analia Fernandez Herrero	Physikalisch-Technische Bundesanstalt, Berlin	Using a Debye-Waller factor during the reconstruction of the line profile of Si-gratings for the determination of the edge roughness
8	Anna Andrie & Victor Soltwisch	Physikalisch-Technische Bundesanstalt, Berlin	Material sensitive characterization of nanostructured surfaces by grazing incidence X-ray fluorescence and scattering
9	Jan Krüger	Physikalisch-Technische Bundesanstalt, Braunschweig	Transmission spectra characterization of nano-patterned guided-mode-resonance color filters
10	Tobias Grunewald	Physikalisch-Technische Bundesanstalt, Braunschweig	Towards traceable Mueller ellipsometry
11	Martin Wienold	Deutsches Zentrum für Luft- und Raumfahrt	Light induced frequency-tuning of terahertz quantum-cascade lasers
12	Carsten Henkel	Universität Potsdam	Direct Measurements of the Interference between Surface Plasmons and an Exciting Laser
13	Po-Ju Chen	Delft University of Technology & HOLOEYE Photonics AG	Optical performance of liquid crystal on silicon spatial light modulator for telecommunication application
14	Anton Pakhomov	JCMwave GmbH & Universität Jena	Optimization of illumination geometry for evaluation of surface nonlinearity in zinc-blende semiconductors
15	Xavier Garcia Santiago	JCMwave GmbH & Karlsruher Institut für Technologie	Towards scalable Bayesian optimization
16	Johannes Sutter	Helmholtz-Zentrum Berlin	Light management nano-structures for perovskite-silicon tandem solar cells
17	Peter Tillmann	Helmholtz-Zentrum Berlin & Zuse Institute Berlin	Realistic Modeling of Diffuse Light for Tandem Solar Cell Applications
18	Felix Binkowski	Zuse Institute Berlin	Contour Integral Methods for Solving Nonlinear Eigenvalue Problems

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From	Speaker	Affiliation	Title
09:15	Dieter Bimberg	TU Berlin, Chinese Academy of Sciences, Changchun	Quantum-Dot Mode-Locked Lasers: One device for Multi-Terabit Transmission
09:30	Jan-Philipp Köster	Ferdinand-Braun-Institut, Berlin	Simulation of Integrated and Widely Tunable Master Oscillator Power Amplifiers using a Traveling Wave Model
09:45	Stefan Rotter	Technische Universität Wien	Novel photonic devices based on exceptional points and coherent perfect absorption (invited)
10:15	Julius Kullig	Universität Magdeburg	High-order exceptional points in weakly deformed optical microdisk cavities
10:30	Coffee Break		
11:00	Carolin Klusmann	Karlsruher Institut für Technologie	Dielectric, Plasmonic, and Hybrid Modes in Whispering-Gallery-Mode Resonators (invited)
11:30	Daniel Werdehausen	Carl Zeiss AG, Jena	Nanocomposite enabled optical elements
11:45	Simone Zanotto	Nanoscience Institute, Pisa	Calculation of optical forces in metasurface membranes by hybrid RCWA scattering-transfer matrix method
12:00	Lunch Break		
13:30	Andreas Trügler	Universität Graz	Probing plasmon and phonon polaritons using electrons (invited)
14:00	Anna Andrle	Physikalisch-Technische Bundesanstalt, Berlin	Combination of XRR with reference-free GIXRF of nanostructures for element sensitive cross-section reconstruction
14:15	Benjamin Röben	Paul-Drude-Institut, Berlin	Electromagnetic simulations of terahertz quantum-cascade lasers

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From	Speaker	Affiliation	Title
14:30	Coffee Break		
15:00	Sebastian Schmitt	Helmholtz-Zentrum Berlin	Electroluminescence enhancement in silicon photonic resonators
15:15	Radius Suryadharma	Karlsruher Institut für Technologie	Predicting Observable Quantities of Self-Assembled Metamaterials from the T-Matrix of Its Constituting Meta-Atoms
15:30	Kevin Müller	École polytechnique fédérale de Lausanne	Analysis of resonances in periodic metasurfaces through the concept of self-coupling modes
15:45	Uwe Bandelow	Weierstraß-Institut, Berlin	Hybrid Modeling and Simulation of Electrically pumped Quantum Light Sources
16:00	End of Day 2		Closing remarks

We acknowledge support by



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