

About this Summer School

The aim of this event is to bring together the new PhD students working in the field of LiMatI. We offer lectures by renowned experts as well as hands-on practices in various tutorial sessions.

Lecturers

Mikhail Ivanov, Max-Born-Institut
Attosecond Theory

Alexander Szameit, University of Rostock
Experimental Solid-State Optics

Michael Bauer, University of Kiel
Ultrafast Dynamics

Stefan Scheel, University of Rostock
Quantum Optics of Macroscopic Systems

Stefanie Gräfe, Friedrich-Schiller-University Jena
Theoretical Chemistry

Markus Huber, Universität Regensburg
Ultrafast Nanoscopy

Examples for hands-on tutorials

Exfoliation and optical microscopy of 2D-crystals, scanning force and scanning electron microscopy of nanostructures, solving the time-dependent Schrödinger equation numerically, synthesizing of your own waveform, in- and outcoupling of waveguides, measurement of UV/vis emission spectra, quantum control of nitrogen-vacancy centers, spectroscopy of ambient air, solving Maxwell equations for near fields.



University of Rostock

INSTITUTE FOR PHYSICS

Contact & Coordination

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Registration ([link](#)) until August 20th 2022

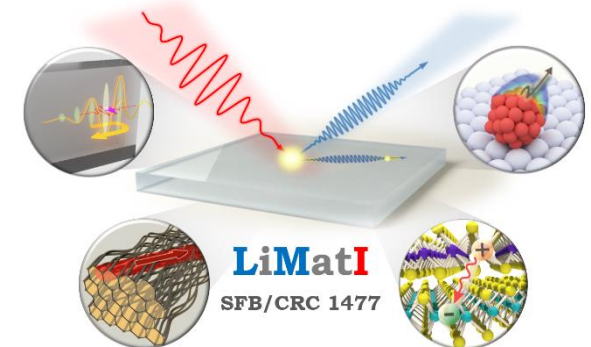
Location & Map ([link](#))

Albert-Einstein-Straße 24 | D 18059 Rostock

1st Summer School 2022 Light-Matter Interactions at Interfaces

Rostock, September 12th – 14th 2022

Registration ([link](#)) until: August 20th 2022



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INSTITUTE FOR PHYSICS
UNIVERSITY OF ROSTOCK

About the Collaborative Research Center

The mission of the CRC 1477 LiMatl (Light-Matter Interactions at Interfaces) is the exploration of light-matter interactions at interfaces employing strong ultrafast fields and dedicated targets. We investigate how the geometrical, electronic and topological structure of light-matter systems with interfaces affect the sub-cycle emission of radiation and particles in strong fields, and how specific excitations and their transport dynamics can be controlled using interfaces with tailored optical and electronic properties. Recent progress in strong-field laser physics, integrated photonics, and condensed matter physics allows pushing light-matter interactions at surfaces and interfaces beyond previous limits, providing the basis for the challenging scientific projects within CRC LiMatl.

Researchers in LiMatl

Barke, Dr. Ingo | [Physics of Surfaces and Interfaces](#)
Bauer, Prof. Dr. Dieter | [Quantum Theory & Many-Particle Systems](#)
Fennel, Dr. Franziska | [Dynamics of Molecular Systems](#)
Fennel, Prof. Dr. Thomas | [Strong-Field Nanophysics](#)
Goulielmakis, Prof. Dr. Eleftherios | [Extreme Photonics](#)
Heinrich, Dr. Matthias | [Experimental Solid-State Optics](#)
Ivanov, Prof. Dr. Mikhail | [Attosecond Theory](#)
Klinke, Prof. Dr. Christian | [Nanostructures and nanomaterials](#)
Korn, Prof. Dr. Tobias | [2D crystals and heterostructures](#)
Kühn, Prof. Dr. Oliver | [Molecular Quantum Dynamics Group](#)
Lesyuk, Dr. Rostyslav | [Nanostructures and nanomaterials](#)
Lochbrunner, Prof. Dr. Stefan | [Dynamics of Molecular Systems](#)
Passig, Dr. Johannes | [Analytical Chemistry](#)
Peltz, Dr. Christian | [Strong-Field Nanophysics](#)
Reinhard, Prof. Dr. Friedemann | [Quantum Technology](#)
Reinholz, PD Dr. Heidi | [Teaching Physics Education](#)
Rouzée, Dr. Arnaud | [Attosecond Physics](#)
Scheel, Prof. Dr. Stefan | [Quantum Optics of Macroscopic Systems](#)
Schick, Dr. Sebastian | [Research Data Management](#)
Speller, Prof. Dr. Sylvia | [Physics of Surfaces and Interfaces](#)
Szameit, Prof. Dr. Alexander | [Experimental Solid-State Optics](#)
Tiggesbäumker, PD Dr. Josef | [Clusters and Nanostructures](#)

	Monday, 12.09.2022	Tuesday, 13.09.2022	Wednesday, 14.09.2022
09:00	Welcome		
09:15	M. Ivanov Max-Born-Institute <i>Fundamentals of strong field ionization</i>	S. Gräfe Friedrich-Schiller-University Jena <i>Plasmonic hybrid systems in external light fields</i>	M. Huber Universität Regensburg <i>Ultrafast terahertz nanoscopy and its applications</i>
10:30		Safety Instructions	S. Schick Rostock University Library <i>Research Data Management and Open Access</i>
10:45	Coffee break		
11:15	A. Szameit University of Rostock <i>Topological Photonics</i>	Hands-on tutorials	Hands-on tutorials
12:45	Lunch break		Conclusion and Farewell
14:00	M. Bauer University of Kiel <i>Some basic aspects of time- and angle resolved photo-electron spectroscopy and a few examples</i>	Excursion Boat trip Start: city port (Warnow) Destin.: Warnemünde (Baltic Sea) More details tba.	
15:30	Coffee break		
16:00	S. Scheel University of Rostock <i>Quantum optics with macroscopic bodies – what's all the (quantum) noise about?</i>		
17:30	Poster Session		
19:00	Dinner		

