

IRTG Summerschool 2024

Imaging quantum systems (IQS): photons, molecules, materials

Tuesday, 21.05.2024

Location: Hörsaal 1, University of Rostock, Faculty of Mathematics and Natural Sciences, Institute of Physics

Chairperson: Prof. Stefan Scheel

09:00 Uhr - 09:20 Uhr Welcome Speech
Prof. Stefan Scheel (Uni Rostock)

09:30 Uhr - 10:30 Uhr Material processing with ultrafast lasers
Prof. Dr. Ravi Bhardwaj (Univ. Ottawa)

15 Minuten Coffee break

10:45 Uhr - 11:30 Uhr Materials seminar

11:45 Uhr - 12:00 Uhr **Photo session**

12:00 Uhr - 14:00 Uhr Lunch

Chairperson: Prof. Simone Baltrusch

14:00 Uhr - 15:00 Uhr Lecture: - **Room change: im LLM-Gebäude**
Fluorescence lifetime imaging and beyond:
theoretical and practical information
Olaf Schulz (PicoQuant)

15:15 Uhr - 16:15 Uhr Lecture: Second harmonic generation:
signal generation using multi photon microscopy and Albased
analysis
Prof. Dr. Dr. Oliver Friedrich (Universität Erlangen)

16:30 Uhr - 18:30 Uhr Poster Session Presentations
and Welcome Party

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Wednesday, 22.05.2024	
Location: Hörsaal 1, University of Rostock, Faculty of Mathematics and Natural Sciences, Institute of Physics	
	Chairperson: Prof. Stefan Scheel
09:00 Uhr - 10:00 Uhr	Lecture: Coherent Electronic Dynamics in Molecules
	Prof. Dr. Albert Stolow (Univ. Ottawa)
30 Minuten	Coffee break
10:30 Uhr - 11:15 Uhr	Presentation/discussion: Understanding nonadiabatic wavepacket dynamics
11:30 Uhr - 12:00 Uhr	Visit Institute of Physics & Lab Tour (in four groups)
12:00 Uhr - 14:00 Uhr	Lunch
	Chairperson: Prof. Simone Baltrusch
14:00 Uhr - 15:00 Uhr	Lecture: Introduction to the Hierarchy of Pure States (HOPS) approach to open quantum dynamics
	Prof. Dr. Walter Strunz (TU Dresden)
15 Minuten	Coffee break
15:15 Uhr - 16:15 Uhr	Lecture: New developments in femtosecond laser technology
	Prof. Dr. Oleg Pronin (Hamburg)
15 Minuten	Coffee break
16:30 Uhr - 17:30 Uhr	Lecture on starting a business
	Bianca Souffrant (Forschungsverbund Mecklenburg-Vorpommern e.V.)
18:30 Uhr - 18:45 Uhr	Visit of the <u>exhibition in the Treasury</u> of the University of Rostock (Main Building, Universitätsplatz 1)
18:45 Uhr - 19:00 Uhr	Visit of the lecture hall of the University of Rostock (Main Building, Universitätsplatz 1)
19:05 Uhr - 19:20 Uhr	Visit to the <u>Astronomical Clock</u> of St. Mary's Church
19:30 Uhr	Conferenz dinner im <u>Wirtshaus Hopfenkeller</u> , Adresse: Rostocker Heide 1 in 18055 Rostock

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Thursday, 23.05.2024 (1/2 Excursion Day)	
Location: Hörsaal 1, University of Rostock, Faculty of Mathematics and Natural Sciences, Institute of Physics	
	Chairperson: Prof. Alexander Szameit
09:00 Uhr - 10:00 Uhr	Structured Light
	Prof. Dr. Ebrahim Karimi (Univ. Ottawa)
15 Minuten	Coffee break
10:15 Uhr - 11:00 Uhr	Seminar: Structured Light
30 Minuten	Coffee break
11:30 Uhr - 12:30 Uhr	Lecture: Statistical Physics of Systems far from Equilibrium -- Electromagnetic Fields and Fluids
	Prof. Dr. Matthias Krüger (Georg-August Univ. Göttingen)
12:30 Uhr - 13:30 Uhr	Lunch
	Chairperson: Prof. Alexander Szameit
	1/2 Exkursionsday
15:00 Uhr (own arrival and departure)	Guided tour of the seal research station at Hohe Düne Ms. Nina Wengst Adress: <u>Marine Science Center</u> Am Yachthafen 3A 18119 Rostock-Hohe Düne