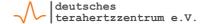


Program 14th Terahertz Young Scientists Meeting

March 10th to 12th, 2024 at Fraunhofer ITWM, Fraunhofer-Platz 1, Kaiserslautern, Germany

A joint event of







14th Terahertz Young Scientists Meeting

Welcome to the 14th Terahertz Young Scientists Meeting at the Fraunhofer ITWM in Kaiserslautern.

The 14th Terahertz Young Scientists Meeting takes place at the Fraunhofer ITWM in Kaiserslautern from March 10th to March 12th, 2024. The Young Scientists Meeting is an annual conference for young researchers in the Terahertz field. It gives PhD and master students the opportunity to present their work at a small conference in a welcoming atmosphere, learn more about other studies concerning Terahertz technology and exchange idea, experiences, and thoughts with other young scientists.

Terahertz technology is well established as a valuable tool for applications in science as well as industrial applications, e.g. in diagnostics, measurement, and testing. Therefore, this exciting field is rapidly developing allowing for both fundamental and applied terahertz research

The 14th Terahertz Young Scientists Meeting will address various topics including:

- Terahertz Applications
- Generation and Detection of Terahertz
- Spectroscopy
- Novel Materials

Chairmen

- Michael Kocybik, Fraunhofer Institute for Industrial Mathematics ITWM, DE
- Joshua Hennig, Fraunhofer Institute for Industrial Mathematics ITWM, DE

Preliminary Program Sunday, March 10th, 2024

15:00	Arrival, Refreshment, and Registration
15:50	Opening Remarks Michael Kocybik and Joshua Hennig, Fraunhofer ITWM, Kaiserslautern, DE
	Session 1: Terahertz Applications
16:00 A.0 1	1 Towards Terahertz Quantum Imaging Mirco Kutas, Fraunhofer ITWM, Kaiserslautern, DE
16:20 A.0 2	2 Terahertz Tomography by Multi-Pixel Detection and A Priori Consideration Karl Henrik May, Fraunhofer ITWM, Kaiserslautern, DE
16:40 A.0 3	Optical Damage Thresholds of Fiber-Tip Spintronic Terahertz Emitters Felix Paries, Fraunhofer ITWM Kaiserslautern, DE
17:00	Coffee Break
17:30	Discussion and Get-Together With Cold Beverages and Pizza; Open End
19:00	Free Evening

Monday, March 11th, 2024

9:00	Arrival	
	Session 2: Generation and Detection	
9:10 A.	04 A Comparative Study on the Measurement of the Noise-Equivalent Power (Nep) of Resonant Terafets via a Blackbody Radiator or a CW Photomixer Emitter	
	Jakob Holstein, Physikalisches Institut, Goethe University Frankfurt, DE	
9:30 A.05 Observation of Parasitic Frequency Components Emitted		
	By CW Photomixers	
	Michael Kocybik, Fraunhofer ITWM Kaiserslautern, DE	

Monday, March 11th, 2024

10:00	Coffee Break
	Session 3: Terahertz Spectroscopy
10:30 A. (Of A Compact Heterodyne Millimeter-Wave/Terahertz Spectrometer for Remote Sensing Lukas Jehna, Humboldt University of Berlin, German Aerospace Center (DLR), Cologne, DE
10:50 A. (77 A Compact CW THz Gas Sensing System Based On A Dual-Wavelength MOPA Laser Yinghui Hu, Photonics and Terahertz Technology, Ruhr University Bochum, DE
11:10 A. (D8 Free-space Terahertz Measurements with a Photonic Spectrum Analyzer Alexander Theis, Fraunhofer ITWM, Kaiserslautern, DE
11:30	Lunch Break at Cafeteria RPTU on the Campus
	Session 4: Novel Materials
13:00 A. (99 Enroute: Electric Field and Current Induced Second Harmonic Generation in Graphene Jonas Woeste, TU Berlin, DE
13:20 A.	10 Continuous-Wave Terahertz Difference-Frequency Generation From Intersubband Polaritonic Metasurface Jonas H. Krakofsky, Walter-Schottky Insitute, TU Munich, DE
13:40 A.	11 Interdigitated Terahertz Metamaterial Sensor Yannik Loth, University of Siegen, DE
14:00	Coffee Break
14:30	Poster Session: Terahertz Technology
15:30	Coffee Break
16:00	Transit to Kaiserslautern City Center
17:00	City Tour
19:00	Dinner at "Brauhaus am Markt"

Preliminary Program Tuesday, March 12th, 2024

9:00	Arrival
	Session 5: Terahertz Applications II
9:10 A	12 Towards Sub-Cycle Resolved Symmetry Modulations in Barium Titante
	Dorothée Mader, Fritz-Haber-Institute of Max-Planck Society, Berlin, DE
9:30 A	13 Characterization and Optimization of Laser-Generated THz Beam for
	THz Based Streaking
	Matthias Nabinger, Karlsruhe Institute of Technology, DE
9:50	Closing Remarks and Awards
10:00	Lab Tour at Fraunhofer ITWM: Joint Event with Terahertz Workhop
12:00	End of the 14th Terahertz Young Scientists Meeting

Poster Session: Terahertz Technology

P.01 Imaging of Structures Embedded in 3D-Printed Objects Using Terahertz Frequency-Domain Spectroscopy

> Janis Kutz, TOPTICA Photonics AG, Gräfelfing, DE

P.02 Fabrication and Calibration of Chromium-Based Filters for Applications in the Terahertz Range Arne Hof, Physikalisches Institut, Goethe University Frankfurt, DE

P.03 Metamaterial-Based Passive Phase Modulators for THz Frequencies

> Larissa Rößler, Goethe University Frankfurt, DE

P.04 Integrating High Frequency THz Source with Active Shot-To-Shot Jitter Correction for High Resolution Optical Probe – THz Pump Experiments

> Clara Simons, Freie Universität Berlin, DE

P.05 Room-Temperature Highly-Sensitive Terahertz Detectors Based on Graphene FETs

Rohit Kapoor, Goethe University Frankfurt, DE

P.06 Time-Domain Spectroscopy for Space Exploration at Terahertz Energy Scales

Dominic Azih, Technical University of Berlin, DE

P.07 Terahertz Upconversion With
Nonlinear Organic Crystals
Maximilian Christ, Fraunhofer ITWM,

Maximilian Christ, Fraunhofer ITWM, Kaiserslautern, DE

P.08 Characterization of Silicon With TDS Over a Wide Resistivity Range

Joshua Hennig, Fraunhofer ITWM, Kaiserslautern, DE

Contact

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