

Sunday 19 June

12:00 Start of registration

Session: Tutorials I

13:30 Lei Zhou Metasurfaces: Physics and applications

14:30 Tobias Kampfrath Terahertz emission spectroscopy: Insights into spintronic materials and applications

15:30 Coffee break

Session: Tutorials II

16:00 Jens Neu Terahertz spectroscopy of emerging materials for solar applications

17:00 Junichiro Kono Terahertz quantum electrodynamics and novel exotic states

18:30 Welcome reception

20:30 End of presentations

Monday 20 June

8:45 Chairs Opening

Session: THz spectroscopy I

9:00 David Cooke Terahertz observation of large polarons in lead halide perovskites

9:45 Jake Hutchinson Ultrafast terahertz dynamics in 2D/3D lead-tin perovskites with enhanced emissivity and phase purity

10:00 Poonam Singh Coherent underdamped polaron oscillations in liquid alcohols

10:15 Wentao Zhang Rigorous modeling of the THz emission spectrometer

10:30 Coffee break

Session: Metamaterials and plasmonics

11:00 Abul Azad Control electromagnetic waves with space-time modulated metasurfaces

11:30 Jeong Woo Han Experimental verification of plasmonic THz nonlinearities on graphene disks

11:45 Elsa Jöchl An ultrastrongly coupled single Terahertz meta-atom

12:00 Dibakar Roy Chowdhury Magnetically reconfigurable terahertz superlattice metasurfaces

12:15 Ilya Shadrivov THz topological meta-devices for on-chip photonics

12:30 Abdullah M. Zaman Towards ultrahigh modulation speed of THz optoelectronic devices based on metamaterial/graphene split-ring resonators

12:45 Lunch break

Session: Optical THz generation and detection I - Currents

14:15 Joachim Buldt High-power gas-plasma based THz generation driven by a fiber-laser

14:30	Mark D. Thomson	Recovery of the absolute temporal fields of THz-infrared continuum pulses using field-induced second-harmonic detection
14:45	Guo-Qian Liao	Extreme THz radiation from relativistic laser plasmas
15:00	Xavier Ropagnol	Generation of intense THz pulses with tunable elliptical polarization
15:15	Justas Deveikis	Controllable generation of azimuthal and radial THz beams using multi-pixel photoconductive emitters
15:30	Igal Brener	Ultra-low noise THz photoconductive metasurface detectors
15:45	Coffee break	
16:15	Shaojie Liu	Enhanced spintronic THz emission by plasmonic nanostructures
16:30	Peiyan Li	Magnetic-field free THz emission from two-dimensional ferromagnet and antiferromagnet heterostructures at room temperature
16:45	Benedikt Limbacher	Terahertz single-pixel & single-shot object recognition
Session: Applications in nanomaterial characterization		
17:00	Petr Kužel	Band bending in GaAs nanobars revealed by near- and far-field terahertz photoconductivity measurements
17:15	Alexej Pashkin	High electron mobility in strained core/shell nanowires revealed by optical pump – THz probe spectroscopy
17:30	Jacob A. Spies	Time-resolved THz spectroelectrochemistry and complementary techniques provide insight into electron transfer processes
17:45	End of presentations	

Tuesday 21 June

Session: THz spectroscopy II - Novel methods

8:45	Leonardo Viti	THz detection with 2D materials
9:15	Sharly Fleischer	Direct, spatially localized detection of THz-induced orientation dynamics of gas phase molecular rotors
9:30	Diyar Talbayev	Time-domain THz superoscillations for superspectroscopy
9:45	Edward Butler-Caddle	THz photoconductivity dynamics of semiconductors from sub-nanosecond to millisecond timescales
10:00	Mathias Hedegaard Kristensen	Classification of THz reflection spectra using machine learning algorithms
10:15	Lucy Hale	The role of surface nonlinearity in THz generation from GaAs metasurfaces
10:30	Coffee break	

Session: Communication

11:00	Daniel Mittleman	Conformal leaky-wave antennas for THz wireless communications
11:15	David Rohrbach	A broadband dispersion-free THz waveguide platform featuring field-enhancement
11:30	Fatima Taleb	The effect of the complex geometries of building materials on scattering properties for the design of THz communication channels
11:45	Joel Edouard Nneck	Parallel generation and modulation of THz pulse trains
12:00	Hichem Guerboukha	Jamming vulnerabilities in THz wireless communications
12:15	Lunch break	

Session: High-field THz physics and nonlinear optics I

13:45	Hynek Nĕmec	Nonlinear terahertz conductivity in semiconductor nanobars: Semiclassical calculations
14:15	Martin J. Cross	Discriminating THz-frequency nonlinear optical processes in ZnTe with two-dimensional spectroscopy
14:30	Seamus O'Hara	Reconstruction of effective Hamiltonian of holes in bulk GaAs
14:45	Josef Riepl	Field-resolved high-order nonlinearities in a free-running terahertz semiconductor laser (semiconductors)
15:00	Rokas Jutas	Direct sub-ps electro-absorption modulation in colloidal quantum dots driven by THz field
15:15	Stephan Winnerl	Pump-induced terahertz anisotropy in graphene
15:30	Coffee break	

Session: Applications in biology and medicine

16:00	Emma MacPherson	In vivo THz ellipsometry of human skin: Breakthroughs and next steps
16:30	Enrique Castro-Camus	THz imaging of the feet reveals evidence of the underlying neurological mechanism of hydration depletion in diabetics
16:45	Jochen Taiber	Analysing the influence of the stomatal activity on the drying process of Arabidopsis thaliana using THz spectroscopy

17:00 Poster session I

18:30 End of presentations

Wednesday 22 June

Session: Quantum phenomena and particle acceleration

8:45	Matthias Hoffmann	Characterization and manipulation of relativistic electron bunches using THz pulses
9:15	Steven Jamison	THz driven acceleration and dechirping of 35 MeV electron beams
9:30	Malte L. Welsch	Light emission from gases and liquids excited by THz-driven field-emitted electrons
9:45	Sándor Kollarics	Masing of nitrogen-vacancy centers in the THz regime
10:00	Alexander Valavanis	Liquid-crystal-based optics for use at THz-QCL frequencies
10:15	Coffee break	
10:45	Poster session II	
12:30	Lunch break	

Session: THz spectroscopy III

14:00	Joachim Deisenhofer	Vacuum-Rabi oscillations in the polar honeycomb antiferromagnets $\text{Fe}_2\text{Mo}_3\text{O}_8$ and $\text{Co}_2\text{Mo}_3\text{O}_8$ probed by THz time-domain spectroscopy
14:15	Kirill Vasin	Microscopic theory of the THz modes and their nonreciprocal directional dichroism in the antiferromagnet $\text{Fe}_2\text{Mo}_3\text{O}_8$
14:30	Konstantin Warawa	Combined analysis of amplitude and phase modes in a quasi-one-dimensional charge density wave system up to 7 THz
14:45	Megan Nielson	Pump-pulse activation of anharmonic coupling in CdWO_4
15:00	Matthias Runge	Few-cycle THz pulses from intersubband shift currents in asymmetric AlGaAs quantum wells
15:15	Tinkara Troha	Ultrafast long-distance electron-hole plasma expansion in GaAs mediated by stimulated emission and reabsorption of photons

15:30 Coffee break

Session: Near-field microscopy and nanoscopy I

16:00	Melanie Müller	Phase-resolved THz bias sampling and its application for ultrafast scanning tunneling microscopy
16:30	Valentino Pistore	Hyperspectral near-field nanoscopy with THz frequency combs
16:45	Carmen Roelke	Quantitative sampling of THz waveforms on atomic scales
17:00	Angela Pizzuto	Nonlocal laser THz emission microscopy
17:15	Andrei Luferau	Time-resolved nanospectroscopy on Si-doped GaAs-InGaAs core-shell nanowires
17:30	Eva Arianna Aurelia Pogna	THz near-field nanoscopy of hyperbolic phonon-polaritons hybridized with Dirac plasmons in topological insulators

17:45 End of presentations

18:30 Conference dinner

Thursday 23 June

Session: High-field THz physics and nonlinear optics II

8:45	Michael Först	Controlling functionality by terahertz nonlinear phononics
9:30	Sebastian F. Maehrlein	Nonlinear phonon excitation in lead halide perovskites traced via THz Kerr effect
9:45	Manuel Meierhofer	Tunable non-integer high-harmonic generation from a topological insulator surface
10:00	Joshua Mornhinweg	Subcycle nonlinearities of ultrastrong light-matter coupling

10:15 Coffee break

Session: Optical THz generation and detection II - Optical rectification

10:45	Clara Saraceno	High power, high repetition rate THz sources
11:15	Niloufar Nilforoushan	Generation of ultra-broadband THz pulses at a 200 kHz repetition rate with peak electric field above 100 kV/cm
11:30	Claire Rader	High-field THz generation from a new organic crystal: PNPA
11:45	Leo Guiramand	Development of an efficient intense THz source and its application for super-resolution imaging
12:00	Baolong Zhang	Efficient multicycle THz generation based on tilted-pulse-front technique
12:15	Dong-Wen Zhang	Strong THz generation and characterization from lithium niobate wafer pumped by SILEX-II petawatt laser facility

12:30 Lunch break

Session: Quantum cascade lasers

14:00	Michael Jaidl	Silicon integrated terahertz quantum cascade ring laser frequency comb
14:15	Sanchit Kondawar	Power-locking of a 3.5-THz quantum-cascade laser using an integrated photonic circuit
14:30	Benedikt Limbacher	Deep learning powered adaptive tuning of quantum cascade random lasers
14:45	Tudor Olariu	Towards continuous wave, single mode, surface-emitting laser at 24 μ m
15:00	Valentino Pistore	Metrological-grade frequency combs engineering from terahertz quantum cascade lasers

15:15 Coffee break

Session: Near-field microscopy and nanoscopy II

15:45	Mengkun Liu	THz near-field imaging of 2D materials and subwavelength metal structures
16:15	Adrian Gozar	Surface Cooper-pair plasma waves in a high-T _c cuprate superconductor
16:30	Tom Siday	Ultrafast nanoscopy of an exciton Mott transition in bilayer WSe ₂
16:45	Jaime Gomez Rivas	Broadband THz near-field microscopy of resonant metasurfaces: Making bound states in the continuum visible
17:00	Hou-Tong Chen	Ultrafast directional photocurrents and terahertz emission from plasmonic nanoantennas on graphene
17:15	PC member or chairs	Closing remarks
17:30	End of presentations	