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Swiss Terahertz is an innovation-driven manufacturer of terahertz (THz) components and systems. We empower scientific research through cutting-edge hardware and address industrial challenges with smart, cost-effective solutions. STHz builds on pioneering advancements of the world most intense organic crystal BNA & DSTMS source technologyy by the company founders. From space missions to industrial and defense applications, our solutions empower the world`s leading institutions to push technological boundaries. Headquartered in Zurich, STHz also operates subsidiaries in Germany, China, and Canada.

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- *Organic crystals: BNA DAST DSTMS OH1*
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- *Customizable THz filters: BPF, BSF, LPF, HPF*
- *PCA Scanner: Fibre-coupled portable PCA TDS*
- *OC Scanner: Ultra broadband organic crystal spectrometer*
- *Terabullet: Ultra intense nonlinear THz systems*

Sunday, April 12, 2026

09:30 AM	Registration
	Student Tutorials (held in Schiciano A/B)
11:00 AM	Tutorial 1: THz Liquid Photonics X.-C. Zhang, *University of Rochester, USA*
12:00 PM	Tutorial 2: Interpreting anisotropic terahertz microspectroscopy data of protein intramolecular vibrational changes with ligand binding Andrea Markelz, *University at Buffalo, USA*
1:00 PM – 2:00 PM	Lunch
2:00 PM	Tutorial 3: Optical Pump THz Probe Spectroscopy Jens Neu, *University of North Texas, USA*
3:00 PM	Tutorial 4: Applications of Metamaterials Younes Ra'di, *Syracuse University, USA*

Monday, April 13, 2026

07:30 AM	Registration	
08:20 AM – 08:30 AM	Opening Remarks Willie Padilla, Duke University & Hassan Arbab, Stony Brook University	
	Session: Artificial Intelligence and Machine Learning Chair: Willie Padilla, *Duke University, USA*	
08:30 AM	**[Keynote] Programming Diffraction for Terahertz Information Processing** Aydogan Ozcan, *University of California, Los Angles, USA*	Mo-A1-1
09:15 AM	**[Invited] Machine-Learning Assisted Design of Reconfigurable Intelligent Surfaces** Marco Rahm, *University of Kaiserslautern, Germany*	Mo-A1-2
09:45 AM	**High-Q Guided-Mode Resonances of Metagratings for Enhanced Terahertz Sensing** Joshua Mornhinweg, *Harvard University*, *USA*	Mo-A1-3
10:00 AM – 10:45 AM	Coffee Break	
	Session: Quantum and Nonlinear Optics I Chair: Hassan Arbab, *Stony Brook University, USA*	
10:45 AM	**[Keynote] Recent Advances in THz near-field Nanoscopy** Mengkun Liu, *Stony Brook University, USA*	Mo-A2-1
11:30 AM	**Effective-Hamiltonian reconstruction through Bloch-wave interferometry in bulk GaAs driven by strong THz fields** Seamus O'Hara, *University of Pennsylvania, USA*	Mo-A2-2
11:45 AM	**Time-resolved spectroscopy of ultrafast carrier dynamics at the atomic limit** Kaedon Cleland-Host, *Michigan State University, USA*	Mo-A2-3
12:00 PM – 01:30 PM	Lunch (Provided)	
	Session: Novel Terahertz Photonics Devices and Applications I Chair: Aydogan Ozcan, *University of California, Los Angeles, USA*	
01:30 PM	**[Keynote] Exploration of THz Photonics under Extreme Conditions** X.-C. Zhang, *University of Rochester, USA*	Mo-B1-1
02:15 PM	**[Invited] Structured THz light with diffractive optical networks** Berardi Sensale-Rodriguez, *University of Utah, USA*	Mo-B1-2
02:45 PM	**Scaled Structured Radar Using a THz Time-Domain Spectrometer** Hichem Guerboukha, *University of Missouri-Kansas City, USA*	Mo-B1-3
03:00 PM	**Spacetime near-field imaging and control of THz surface plasmon polaritons in graphene** Simon Anglhuber, *University of Regensburg, Germany*	Mo-B1-4

Monday, April 13, 2026

03:15 PM – 04:00 PM	Coffee Break	
	Session: **Terahertz Spectroscopy** Chair: Mengkun Liu, *Stony Brook University, USA*	
04:00 PM	**[Invited] When Vibrations Become Chemistry: Terahertz Phonons Dictate Reactivity in Organic Materials** Michael Ruggiero, *University of Rochester, USA*	Mo-B2-1
04:30 PM	**Competing CDW orders in DyTe3 studied by THz-STM** Sheng Lee, *Michigan State University, USA*	Mo-B2-2
04:45 PM	**Be Flexible: Strain-Induced Changes in Optoelectronic Properties of InGaAs** Terng Junn Keat, *University of Oxford, UK*	Mo-B2-3
05:00 PM	**Lightwave Engineering of Excitonic States in an Atomically Thin Semiconductor** Omer Kneller, *University of Regensburg, Germany*	Mo-B2-4

Dinner on your own.

Tuesday, April 14, 2026

07:30 AM	**Registration**	
	Session: Terahertz Near-field Optics and Phenomena I Chair: Daniel Mittleman, *Brown University, USA*	
08:00 AM	**[Keynote] THz Spectroscopy of Semiconductors** Michael Johnston, *University of Oxford, UK*	Tu-A1-1
08:45 AM	**[Invited] Atomic-scale terahertz time-domain spectroscopy** Tyler Cocker, *Michigan State University, USA*	Tu-A1-2
09:15 AM	**[Invited] Subcycle terahertz microscopy: how to reach the smallest spatial scales** Tom Siday, *University of Birmingham, UK*	Tu-A1-3
09:45 AM	**Advancing lightwave-driven scanning tunneling microscopy to attosecond resolution** Katharina Glöckl, *University of Regensburg, USA*	Tu-A1-4
10:00 AM – 10:45 AM	**Coffee Break**	
	Session: Terahertz Bio-Photonics I Chair: Masayoshi Tonouchi, *Okayama University, Japan*	
10:45 AM	**[Keynote] Utilizing a perturbed Fabry-Perot effect to enhance THz spectroscopy of surface tissue** Zachary Taylor, *Aalto University, Finland*	Tu-A2-1
11:30 AM	**Single-cell Terahertz Imaging Using Scanning Point THz Source Microscopy** Kazunori Serita, *Waseda University, Japan*	Tu-A2-2
11:45 PM	**Double Debye dielectric function in THz Biophotonics: preventing overfitting under limited bandwidth and dimensionality reduction for AI/ML models** Erica Heller, *Stony Brook University, USA*	Tu-A2-3
12:00 PM – 01:30 PM	**Lunch (Provided)**	
	Session: Novel Terahertz Photonics Devices and Applications II Chair: Zachary Taylor, *Aalto University, Finland*	
01:30 PM	**[Keynote] Diagnosis and treatment of cancer using terahertz radiation** Joo-Hiuk Son, *University of Seoul, South Korea*	Tu-B1-1
02:15 PM	**[Invited] Advanced photoconductive THz devices for time-domain spectroscopy, imaging and ellipsometry** James Lloyd-Hughes, *University of Warwick, UK*	Tu-B1-2
02:45 PM	**Chiral Multimode Terahertz Deep-Strong Coupling** Lucy Hale, *ETH, Zurich, USA*	Tu-B1-3
03:00 PM	**Broadband Terahertz Quarter-Wave Plates** Hou-Tong Chen, *Los Alamos National Laboratory, USA*	Tu-B1-4

Tuesday, April 14, 2026

03:15 PM – 04:00 PM	**Coffee Break**	
	Session: Non-Destructive Testing I Chair: Hou-Tong Chen, *Los Alamos National Laboratory, USA*	
04:00 PM	**[Invited] Enhanced terahertz nondestructive evaluation of materials** David Citrin, *Georgia Institute of Technology, USA*	Tu-B2-1
04:30 PM	**Multi-Scale Attention Residual Network-Driven Terahertz Imaging for Damage Visualization in GFRP Composite** Min Zhai, *Shenzen University*, China	Tu-B2-2
04:45 PM	**Weakly Supervised Damage Localization in GFRP Laminates Using Terahertz Imaging and Deep Learning** Niyem Mawenbe Bawana, *Georgia Institute of Technology*, *USA*	Tu-B2-3
05:00 PM	**Terahertz nondestructive mapping of ABF thickness on embedded die in glass substrate** Erwan Emile, *Georgia Tech-CNRS*, *France*	Tu-B2-4
	Poster Session	
05:15 PM – 07:00 PM	**Terahertz Imaging of Cellulose Nano Fiber Composites** Atsushi Nakanishi, *Hamamatsu Photonics K.K., Japan*	P1
	Accurate in situ calibration of THz polarimetry imaging systems using leaky wire grid polarizers Arash Karimi, *Stony Brook University*, *USA*	P2
	Single-shot coherent detection of ultrabroadband millijoule-class THz pulses Alexander Ohrt, *Technical University of Denmark*, *Denmark*	P3
	Terahertz Spectroscopy Data Augmentation and EfficientVMamba Model for Drug Classification Nan Zhang, *National University of Singapore, Singapore*	P4
	Lightwave-driven flat bands in a van der Waals crystal Changhua Bao, *University of Regensburg, Germany*	P5
	3D UV-Lithography-Fabricated Metamaterial Band-Stop Filters for the 1.8-2.7 THz Band Danil Khaiumov, *University of North Texas, Denton, USA*	P6
	An Ultra-thin and Compact Terahertz Metamaterial Sensor Excited by a Point Terahertz Source Kazunori Serita, *Waseda University, USA*	P7
	THz QC-VECSEL with folded cavity for reduced free-spectral-range Michela Mattia, *University of California, Los Angeles, USA*	P8
	An Enhanced Physics-Aware Generative Adversarial Network for Terahertz Image Super-Resolution Restoration Min Zhai, *Shenzhen University, China*	P9
	Dielectric Characterization of BNNT-Reinforced PMMA Using Terahertz Time-Domain Spectroscopy Min Zhai, *Shenzhen University, China*	P10

Dinner on your own.

Wednesday, April 15, 2026

07:30 AM	**Registration**	
	Session: THz QCLs and Sensing Chair: Michael Johnston*, University of Oxford, UK*	
08:00 AM	**[Keynote] Nonlinear optics and combs in terahertz quantum cascade lasers** David Burghoff, *California Institute of Technology, USA*	We-A1-1
08:45 AM	**[Invited] Development of Terahertz Sensing Components and Applications** Chiko Otani, *RIKEN, Japan*	We-A1-2
09:15 AM	**[Invited] QCL-pumped molecular THz lasers** Henry Everitt, *US Army DEVCOM, USA*	We-A1-3
09:45 AM	**Flip-chip bonding of THz QC-laser to silicon substrate for improved CW operating temperature** Daniel McGovern, *University of California, Los Angeles, USA*	We-A1-4
10:00 AM – 10:45 AM	**Coffee Break**	
	Session: Terahertz Communications Chair: Willie Padilla, *Duke University, USA*	
10:45 AM	**[Keynote] Terahertz Sensing and Communications in the Near Field** Daniel Mittleman, *Brown University, USA*	We-A2-1
11:30 AM	**Widely tunable terahertz molecular laser for wireless communications** Paul Chevalier, *Harvard University, USA*	We-A2-2
11:45 AM	**Self-Healing Fidelity of Airy Beams Generated from Distributed Apertures** Kevin Mutai, *Brown University, USA*	We-A2-3
12:00 PM – 01:30 PM	**Lunch (Provided)**	
	Session: Novel Terahertz Photonics Devices and Applications III Chair: Mengkun Liu, *Stony Brook University, USA*	
01:30 PM	**[Keynote] New directions in high average power, ultrafast laser-driven THz sources** Clara Saraceno, *Ruhr University Bochum, Germany*	We-B1-1
02:15 PM	**[Invited] Spectroscopic Terahertz Imaging using Parametric Generation and Detection** Kosuke Murate, *Nagoya University, Japan*	We-B1-2
02:45 PM	**Terahertz field control of surface topology probed with subatomic resolution** Stephanie Adams, *Michigan State University, USA*	We-B1-3
03:00 PM	**Lightwave-driven ballistic spintronics** Philipp Weißenberger, *University of Regensburg, Germany*	We-B1-4

Wednesday, April 15, 2026

03:15 PM – 04:00 PM	**Coffee Break**	
	Session: Quantum and Nonlinear Optics II Chair: Clara Saraceno, *Ruhr University Bochum, Germany*	
04:00 PM	**Continuous-Wave Multi-THz Microscopy for All-Optical Imaging at the Atomic Scale** Svenja Nerreter, *University of Regensburg, Germany*	We-B2-1
04:15 PM	**THz-Driven Symmetry Modulation in MnPS3** Martin Cross, *SLAC National Accelerator Lab, USA*	We-B2-2
04:30 PM	**Terahertz-Field-Induced Charging and Extreme Tunnel Currents through Single-Atom Defects** Austin Hayes, *Michigan State University, USA*	We-B2-3
07:00 PM – 09:30 PM	**Conference Banquet** Location: Presidents I, Washington Duke Inn & Golf Club	

Thursday, April 16, 2026

07:30 AM	**Registration**	
	Session: Non-Destructive Testing II Chair: David Citrin, *Georgia Institute of Technology, USA*	
08:00 AM	**[Keynote] Towards quantum-cascade VECSELs as THz spectroscopic sources** Benjamin Williams, *University of California, Los Angeles, USA*	Th-A1-1
08:45 AM	**[Invited] Terahertz Time-Domain Spectroscopy for Plastic Classification in Waste Sorting and Recycling** Pernille Klarskov Hansen, *Aarhus University, Denmark*	Th-A1-2
09:15 AM	**[Invited] Optical and THz sensing provide objective and sensitive assessment of degradation in marble heritage structure** Aparajita Bandyopadhyay, *Indian Institute of Technology, Delhi, India*	Th-A1-3
09:45 AM	**Detecting Presence of Hemp Oil Chemical Treatment in Standard Copier Paper Through Terahertz Time-Domain Spectroscopy** Charles Chimera, *University of Rochester, USA*	Th-A1-4
10:00 AM – 10:45 AM	**Coffee Break**	
	Session: Terahertz Bio-Photonics II Chair: Hassan Arbab, *Stony Brook University, USA*	
10:45 AM	**[Keynote] Scanning Point Terahertz Source for Bio-Applications** Masayoshi Tonouchi, *Okayama University, Japan*	Th-A2-1
11:30 AM	**Mapping Corneal Hydration Gradients by Sparse Deconvolution of THz Images** Zachery Harris, *Stony Brook University, USA*	Th-A2-2
11:45 AM	**Pulsed Terahertz Imaging of Heterogenous Tumor microenvironment in Murine Pancreatic Ductal Adenocarcinoma** Roman Sobolewski, *University of Rochester, USA*	Th-A2-3
12:00 PM – 01:30 PM	**Lunch (Provided)**	
	Session: Terahertz Optoelectronics I Chair: Benjamin Williams, *University of California, Los Angeles, USA*	
01:30 PM	**[Keynote] Programmable Electromagnetic Surfaces at mmWave/THz for Future Communication and Sensing** Kaushik Sengupta, *Princeton University, USA*	Th-B1-1
02:15 PM	**[Invited] Magneto-Terahertz Spectroscopy of Correlated Magnetic Materials** Felix Hernandez, *University of São Paulo*, *Brazil*	Th-B1-2
02:45 PM	**2D THz Field Electron Emission from a Tungsten Nanotip** Laurent David, *McGill University, Canada*	Th-B1-3
03:00 PM	**Generation of narrowband THz fields for on-chip nonlinear two-dimensional terahertz spectroscopy** Nadia Berndt, *Massachusetts Institute of Technology*, *USA*	Th-B1-4

Thursday, April 16, 2026

03:15 PM – 04:00 PM	**Coffee Break**	
04:00 PM	**Session: Terahertz Waveguides** Chair: Willie Padilla, *Duke University, USA* **[Invited] Hybrid Waveguides for Ultra-Wideband Terahertz Beam Engineering** Shaghik Atakaramians, *University of New South Wales, Sydney, Australia*	Th-B2-1

Dinner on your own.

Friday, April 17, 2026

07:30 AM	**Registration**	
	Session: Terahertz Optoelectronics II Chair: Jens Neu, *University of North Texas, USA*	
08:00 AM	**[Keynote] Terahertz Frequency Stabilization using Synthetic FM Triplet via Intensity Modulation** Koichiro Tanaka, *RIKEN, Japan*	Fr-A1-1
08:45 AM	**[Invited] Monolithically integrated terahertz optoelectronics enabled by gain-enhanced photomixing in quantum well heterostructures** Mona Jarrahi, *University of California, Los Angeles, USA*	Fr-A1-2
09:15 AM	**[Invited] CMOS platforms for Sub-THz wavefront generation and manipulation** Suresh Venkatash, *North Carolina State University, USA*	FR-A1-3
09:45 AM	~~**Carrier dynamics and doping effects in Cu-doped GaAs**~~ ~~Sneha Sreekumar, *University of North Texas, Denton, USA*~~ (Cancelled)	Fr-A1-4
10:00 AM – 10:45 AM	**Coffee Break**	
	Session: Terahertz Generation and Spectroscopy Chair: Koichiro Tanaka, *RIKEN, Japan*	
10:45 AM	**Wavelength-dependent saturation effects in THz generation from DSTMS pumped by Raman-shifted pulses** Malte Welsch, *INRS-EMT, Canada*	Fr-A2-1
11:00 AM	**Finite-momentum Cooper plasmons in superconducting terahertz self-cavities** Alex Potts, *Columbia University, USA*	Fr-A2-2
11:15 AM	**Raman Spectroscopy and First-Principles Study of DCNP Nonlinear Optical Crystal for Terahertz Generation** Amartya Sengupta, Aparajita Bandyopadhyay, *Indian Institute of Technology, Delhi, India*,	Fr-A2-3
11:30 AM	**OPTP of Hole Photoconductive Metal-Organic Frameworks** Jens Neu, *University of North Texas, USA*	Fr-A2-4
11:45 PM	**Awards and Closing Ceremony** Willie Padilla and Hassan Arbab	
12:00 PM – 1:30 PM	**Lunch (Provided)**	
01:30 PM	**Excursions**	