

Plenary talk			9/30 (Mon.) Session A : Manarola Chair : Hou-Tong Chen (LANL)					9/30 (Mon.) Session B : Vernazza	
Presentation order	Time	Presentation types	Title	Speakers	Presentation order	Time	Presentation types	Title	Speaker
1	10:00 ~ 10:45	Plenary	Laser Terahertz Emission Microscope for Real World Application	Masayoshi Tonouchi	-	-	-	-	-
2	10:45 ~ 11:30	Plenary	FEL activity in Budker INP	Nikolay Vinokurov	-	-	-	-	-
			Group Photo / Lunch Break					Group Photo / Lunch Break	
Millimeter/THz Wave Generation & Applications I			9/30 (Mon.) Session A : Manarola Chair : Bumki Min (KAIST)		Microwave/THz Sensing & Imaging I			9/30 (Mon.) Session B : Vernazza Chair : Kyung Rok Kim (UNIST)	
Presentation order	Time	Presentation types	Title	Speakers	Presentation order	Time	Presentation types	Title	Speaker
1	13:20 ~ 13:45	Invited	Novel Concepts of Intense THz Sources and Applications	Jozsef Andras Fulop	1	13:20 ~ 13:45	Invited	Highly Sensitive THz Detection Using IS-TPG	Kodo Kawase
2	13:45 ~ 14:10	Invited	Laser-based, Palmtop-size Terahertz-wave Parametric Oscillator	Hiroaki Minamide	2	13:45 ~ 14:10	Invited	Full-field terahertz imaging at kilohertz frame rates using atomic vapour	Kevin John Weatherill
3	14:10 ~ 14:35	Invited	Frequency-versatile terahertz vortex generation	Katsuhiko Miyamoto	3	14:10 ~ 14:35	Invited	THz Mixers and Detectors Developed for the DATES Telescope	Sheng-Cai Shi
4	14:35 ~ 15:00	Invited	Terahertz special beams: Generation and characterization	Yan Zhang	4	14:35 ~ 14:50	Oral	100-GHz Optical Waveform Measurement by Novel Lightwave/THz-wave Interferometer	Ruo Yamamoto
					5	14:50 ~ 15:05	Oral	Gate Electrode as an Output Port of a Grating-Gate Plasmonic THz Detector	Taku Saito
			Coffee Break					Coffee Break	
Millimeter/THz Wave Generation & Applications II			9/30 (Mon.) Session A : Manarola Chair : Kazutoshi Kato (Kyushu Univ.)		Microwave/THz Quantum Phenomena I			9/30 (Mon.) Session B : Vernazza Chair : Jose Aumentado (NIST)	
Presentation order	Time	Presentation types	Title	Speakers	Presentation order	Time	Presentation types	Title	Speakers
1	15:35 ~ 16:00	Invited	Novel Resonant-Tunneling-Diode Terahertz Oscillators Integrated with Cavity Resonators for High Frequency and High Output Power	Masahiro Asada	1	15:35 ~ 16:00	Invited	Terahertz Power Detectors based on Superconducting HEBs with Microwave Readout	Jian Chen
2	16:00 ~ 16:25	Invited	Solid-state terahertz sources based on intracavity stimulated polariton scattering	Andrew Lee	2	16:00 ~ 16:25	Invited	High-T _c Superconducting Terahertz Receivers for Wireless Communication	Jia Du
3	16:25 ~ 16:50	Invited	Graphene for Room-Temperature Operating Terahertz Coherent Light Sources	Akira Satou	3	16:25 ~ 16:50	Invited	Quantum limited RF Amplifiers based on Superconducting Quantum Interference Devices	Yong-Ho Lee
4	16:50 ~ 17:05	Oral	Terahertz plasmonic graphene-channel transistor laser	Yoshiki Fuse	4	16:50 ~ 17:15	Invited	InGaAs high-electron-mobility transistors toward Tera-Hz operation	Dae-Hyun Kim

Plenary talk				10/1 (Tue.) Session A : Manarola Chair : Thomas Feurer (Univ. of Bern)				10/1 (Tue.) Session B : Vernazza			
Presentation order	Time	Presentation types	Title	Speakers	Presentation order	Time	Presentation types	Title	Speaker		
1	09:00 ~ 09:45	Plenary	Terahertz nano antennas for extreme applications	Dai Sik Kim	-	-	-	-	-		
Coffee Break				Coffee Break				Coffee Break			
THz Communications				10/1 (Tue.) Session A : Manarola Chair : Jae-Sung Rieh (Korea Univ.)				Microwave/THz Quantum phenomena II			
Presentation Order	Time	Presentation types	Title	Speakers	Presentation order	Time	Presentation types	Title	Speakers		
1	10:15 ~ 10:40	Invited	Future Direction of Photonics-enabled Terahertz Communications	Tadao Nagatsuma	1	10:15 ~ 10:40	Invited	Josephson Junction Microwave Parametric Amplifiers for Quantum Computation	Jose Aumentado		
2	10:40 ~ 11:05	Invited	300-GHz-Band One-Chip CMOS Wireless Transceiver and Its Future	Minoru Fujishima	2	10:40 ~ 11:05	Invited	Interaction between a Transmon and Microwave Driving Fields	Guozhu Sun		
3	11:05 ~ 11:30	Invited	Prospect of Next ten years R&D on Terahertz Communication	Iwao Hosako	3	11:05 ~ 11:30	Invited	Generation and detection of itinerant microwave photons using superconducting qubits	Shingo Kono		
4	11:30 ~ 11:45	Oral	Demonstration of AND Operation between Two Carriers for Encryption Secured Terahertz Wave Communication	Kenta Yamauchi	4	11:30 ~ 11:55	Invited	Circuit Engineering for Scalable Quantum Computer	Jae-Yoon Sim		
5	11:45 ~ 12:00	Oral	Multiplication of Repetition Frequency at Optical Pulse Train Generated from Optical Frequency Comb	Kohei Ichijima							
Lunch Break				Lunch Break				Lunch Break			
THz Spectroscopy I				10/1 (Tue.) Session A : Manarola Chair : Chi-Kuang Sun (Nat. Taiwan Univ.)				Millimeter/THz Wave Generation & Applications III			
Presentation order	Time	Presentation types	Title	Speakers	Presentation order	Time	Presentation types	Title	Speakers		
1	13:30 ~ 13:55	Invited	Probing Transient Photoconductivity in Metal Oxides, Mixed Metal Oxides, and Organic Molecular Frameworks (MOFs) Using Time-Resolved THz Spectroscopy	Charles Schmuttenmaer	1	13:30 ~ 13:55	Invited	Terahertz Spintronic Emitters: the Properties and Optimizations	Masahiko Tani		
2	13:55 ~ 14:20	Invited	Ultrafast Studies of Terahertz Plasmon Polaritons in Topological Insulators	Hyunyoung Choi	2	13:55 ~ 14:20	Invited	Recent progress of THz wave generators based on organic nonlinear optical single crystals	O-Pil Kwon		
3	14:20 ~ 14:45	Invited	Terahertz conductivity of semiconductor nanostructures	Hynek Nemeč	3	14:20 ~ 14:45	Invited	Terahertz radiation generated by multi-color laser excited air plasma: The role of pump power ratio and relative phase	Ci-Ling Pan		
4	14:45 ~ 15:10	Invited	All-dielectric THz topological waveguides	Ranjan Singh	4	14:45 ~ 15:00	Oral	MHz repetition-rate, sub-mW, multi-octave THz generation in HMQ-TMS	Tobias Buchmann		
5	15:10 ~ 15:25	Oral	Trion light emission in type-I WSe ₂ /MoTe ₂ van der Waals heterostructures	Hyemin Bae	5	15:00 ~ 15:15	Oral	Contribution of nonlinear optical effects in terahertz differential frequency generation in organic crystals	Isao Yoshimine		
					6	15:15 ~ 15:30	Oral	Generation of mJ-level terahertz pulses in lithium niobate crystals	Baolong Zhang		
Coffee Break				Coffee Break				Coffee Break			
THz Spectroscopy II				10/1 (Tue.) Session A : Manarola Chair : Charles Schmuttenmaer (Yale Univ.)				THz Spintronics & Magneto-optics			
Presentation order	Time	Presentation types	Title	Speakers	Presentation order	Time	Presentation types	Title	Speakers		
1	16:00 ~ 16:25	Invited	Revealing the ultralong mean free paths of room-temperature phonons by using THz Acoustics	Chi-Kuang Sun	1	16:00 ~ 16:25	Invited	THz Spintronics: from fundamental research to applications	Yang Wu		
2	16:25 ~ 16:50	Invited	Ultrafast dynamics of Dirac electrons and excitons in 2D semiconductors and topological insulators	Sangwan Sim	2	16:25 ~ 16:50	Invited	Unconventional phase transition in optimally doped BaFe _{1.3} Co _{0.7} As ₂	Kyungwan Kim		
3	16:50 ~ 17:15	Invited	Dielectric Permittivity Measurement Insensitive to the Sample Deformation at Millimeter Wave	EunMi Choi	3	16:50 ~ 17:15	Invited	Manipulation of terahertz polarization and femtosecond spin currents in ferromagnetic heterostructures	Xiaojun Wu		
4	17:15 ~ 17:30	Oral	Modern gyrotron setups for molecular gas spectroscopy	Anton Sedov	4	17:15 ~ 17:30	Oral	Ultrafast Kerr-rotation measurements of spin-valley dynamics across the MoS ₂ /WTe ₂ interface	Wonhyeok Heo		

Plenary talk			10/2 (Wed.) Session A : Manarola Chair : Masayoshi Tonouchi (Osaka Univ.)					10/2 (Wed.) Session B : Vernazza	
Presentation order	Time	Presentation types	Title	Speakers	Presentation order	Time	Presentation types	Title	Speaker
1	09:00 ~ 09:45	Plenary	Thin-film terahertz conductivity and field-driven electron emission	Peter Uhd Jepsen	-	-	-	-	-
Coffee Break					Coffee Break				
THz Metamaterials I			10/2 (Wed.) Session A : Manarola Chair : Teun-Teun Kim (IBS, SKKU)		Microwave/THz Sensing & Imaging II			10/2 (Wed.) Session B : Vernazza Chair : Tyler L. Cocker (Michigan State Univ.)	
Presentation order	Time	Presentation types	Title	Speakers	Presentation order	Time	Presentation types	Title	Speakers
1	10:15 ~ 10:40	Invited	Accelerated Design of Terahertz All-Dielectric Metasurfaces with Machine Learning	Willie Padilla	1	10:15 ~ 10:40	Invited	Continuous Wave Terahertz System for Sensing and Imaging Applications	Kyung Hyun Park
2	10:40 ~ 11:05	Invited	THz Metasurface for Efficient Polarization and Phase Control	Jae-Hyung Jang	2	10:40 ~ 11:05	Invited	Electrically Reconfigurable Grating Modulators for Terahertz Waves	Marco Rahm
3	11:05 ~ 11:30	Invited	Metasurface Empowered Flat-Optics for Microwave Applications	Abul Azad	3	11:05 ~ 11:30	Invited	Nano-Carbon Flexible Camera and Frequency-tunable Plasmonic Imager	Yukio Kawano
4	11:30 ~ 11:55	Invited	Highly Sensitive Biomolecule Sensing Exploiting Graphene Assisted THz Resonators	Minah Seo	4	11:30 ~ 11:55	Invited	Terahertz imaging detectors based on CMOS technology	Kyung Rok Kim
5	11:55 ~ 12:10	Oral	All-dielectric guided-mode resonance filter for applications	Hyeon Sang Bark	5	11:55 ~ 12:10	Oral	High depth resolution THz-OCT using swept source for infrastructure inspection	Homare Momiyama
Lunch Break					Lunch Break				
THz Metamaterials II			10/2 (Wed.) Session A : Manarola Chair : Hynek Nemeč (Czech Academy of Sciences)		Millimeter/THz Wave Generation & Applications IV			10/2 (Wed.) Session B : Vernazza Chair : Hiroaki Minamide (RIKEN)	
Presentation order	Time	Presentation types	Title	Speakers	Presentation order	Time	Presentation types	Title	Speakers
1	13:30 ~ 13:55	Invited	THz Field Enhancement Structures and Applications	Thomas Feurer	1	13:30 ~ 13:55	Invited	Generation and Control of Terahertz-Wave Beam by Photonics Technology	Kazutoshi Kato
2	13:55 ~ 14:20	Invited	Investigation of Broadband Electrically Tunable THz Metamaterials Polarization Conversion	Seongsin Margaret Kim	2	13:55 ~ 14:20	Invited	Precision control of the output parameters of THz range gyrodevices	Alexander Tsvetkov
3	14:20 ~ 14:45	Invited	Actively Controllable Molecularization of Terahertz Meta-Atoms	Hojin Lee	3	14:20 ~ 14:45	Invited	Noises in photoconductive antennas under fs pulse excitation	Yutaka Kadoya
4	14:45 ~ 15:10	Invited	Ultrafast tunneling transport using terahertz time-domain spectroscopy	Young-Mi Bahk	4	14:45 ~ 15:00	Oral	Advanced Methods of Synthesis of Passive Microwave Components: Theory and Examples	Dmitry I Sobolev
5	15:10 ~ 15:25	Oral	Terahertz Nonlinearity in Nano-gap Terahertz Metamaterials	Peidi Yang	5	15:00 ~ 15:15	Oral	Impact of AR coating on THz Wave Radiation from Arrayed Photomixers/Antennas	Nanami Nishiyama
					6	15:15 ~ 15:30	Oral	Arrayed Light Sources for Photonic Terahertz Wave Generation	Younjin Kim
Coffee Break					Coffee Break				
Microwave/THz Biology			10/2 (Wed.) Session A : Manarola Chair : Young-Mi Bahk (Incheon National Univ.)		THz Spectroscopy III			10/2 (Wed.) Session B : Vernazza Chair : Toshihiko Kiwa (Okayama Univ.)	
Presentation order	Time	Presentation types	Title	Speakers	Presentation order	Time	Presentation types	Title	Speakers
1	16:00 ~ 16:25	Invited	MMW-THz field interactions with cells, tissues and organisms	Vincent Wallace	1	16:00 ~ 16:25	Invited	Terahertz spectroscopy for the solid electrolytes of fuel cells	Masaya Nagai
2	16:25 ~ 16:50	Invited	THz dielectric constant of fungi and bacteria in conjunction with their cell wall composition	Yeong-Hwan Ahn	2	16:25 ~ 16:50	Invited	Monitoring cis-to-trans Isomerization of Azobenzene by Terahertz Time-Domain Spectroscopy	Jianguang Han
3	16:50 ~ 17:15	Invited	Conformational Analysis of Biogenic Precursors of Secondary Organic Aerosols Using High Resolution THz Spectroscopy	Arnaud Cuisset	3	16:50 ~ 17:15	Invited	Active Structural Changes of Polymer and Protein by Terahertz Irradiation	Chiko Otani
4	17:15 ~ 17:30	Oral	Assessment and manipulation of DNA methylation in blood cancer using terahertz radiation	Hwayeong Cheon	4	17:15 ~ 17:30	Oral	Time-resolved Optical Pump-THz Ellipsometer Probe Measurements on Silicon	Bong Joo Kang

Plenary talk				10/3 (Thu.) Session A : Manarola Chair : Peter Uhd Jepsen (DTU)				10/3 (Thu.) Session B : Vernazza			
Presentation order	Time	Presentation types	Title	Speakers	Presentation order	Time	Presentation types	Title	Speaker		
1	09:00 ~ 09:45	Plenary	Tailor Metasurface Dispersion for Broadband Terahertz Polarization Conversion	Hou-Tong Chen	-	-	-	-	-		
Coffee Break				Coffee Break				Coffee Break			
THz Metamaterials III				10/3 (Thu.) Session A : Manarola Chair : Abul Azad (LANL)				Advanced THz Microscopy			
Presentation order	Time	Presentation types	Title	Speakers	Presentation order	Time	Presentation types	Title	Speakers		
1	10:15 ~ 10:40	Invited	All-Dielectric Metasurfaces Toward Functional Terahertz Devices	Xueqian Zhang	1	10:15 ~ 10:40	Invited	Ultrafast terahertz microscopy of local currents	Tyler Liam Cocker		
2	10:40 ~ 11:05	Invited	Photonic Weyl system with extremely broadband topological surface states and nodal surface using photonic metamaterials	Junsuk Rho	2	10:40 ~ 11:05	Invited	Terahertz Near-Field Microscopy	Haewook Han		
3	11:05 ~ 11:30	Invited	Graphene electromagnetically induced transparency metasurfaces	Teun-Teun Kim	3	11:05 ~ 11:30	Invited	Terahertz Chemical Microscopy for Visualizing Chemical Reactions	Toshihiko Kiwa		