Program

ver. 20261015

The 10th International Workshop on Far-Infrared Technologies (IW-FIRT 2026)

October 28-30, 2026, Conference Room (13th floor), Science Tower I, University of Fukui (Fukui, Japan)

Oct. 28 (Wed)

Start time	*Session*	*No.*	*Time*	*Name (Affiliation)*	*Title*	*Chairperson*
13:25	Opening remarks		0:05	Hidehiko Okazawa (Executive Director / Vice President, Univ. of Fukui)		
13:30	Opening talk		0:10	Yoshinori Tatematsu (FIR UF, Japan)		
13:40	Development and applications of gyrotrons	INV-28p-1	0:30	Masafumi Fukunari (FIR UF, Japan)	Advances in High-Power Terahertz Gyrotrons and Their Emerging Applications	Yuusuke Yamaguchi
14:10		INV-28p-2	0:30	Tsun-Hsu Chang (Dept. of Phys., NTHU, Taiwan)	A Comparative Study of TE- and TM-mode Operation in Gyrotrons	
14:40	Break		0:20			
15:00	Development and applications of gyrotrons	INV-28p-3	0:30	Seong-Tae Han (KERI, Korea)	Recent Advances in Vacuum Electronics and Related Technologies toward Industrial Applications of Sub-Terahertz at KERI	Masafumi Fukunari
15:30		INV-28p-4	0:30	Shota Yamazaki (NICT, Japan)	Thermal Responses beyond the Terahertz Penetration Depth Revealed by 3D Fluorescence Thermometry in Skin-Equivalent Phantoms	
16:00	Break		0:20			
16:20	Development and applications of gyrotrons	INV-28p-5	0:30	Maho Matsukura (Utokyo, Japan)	Design of a D-band Circuit for Wireless Power Transfer with Gyrotron	Yoshinori Tatematsu
16:50		28p-6	0:20	Max Vöhringer (IHM-KIT, Germany)	Design of a Superconducting Magnet for Gyro-TWT Experiments from 1.8 to 5.5 T	
17:10		28p-7	0:20	Zih-Cian Liou (Dept. of Phys., NTHU, Taiwan)	Nonlinear TE-TM Mode Competition in a Terahertz Gyrotron	
17:30	End					

☞Note

All invited talks are 30-minutes and contributed talks are 20-minutes including the time for discussions (~5 min). For oral presentations, you can connect your own PC to LCD projector via HDMI connector & standard RGB cable (mini D-sub 15 pin connector). If you will not bring your own PC but you have your presentation file with you, please let us know in advance.

For poster presentations, please refer to the note in the list of poster presentations.

Oct. 29 (Thu)

Start time	*Session*	*No.*	*Time*	*Name (Affiliation)*	*Title*	*Chairperson*
9:00	THz spectroscopy and techniques	INV-29a-1	0:30	Shang-Hua Yang (Dept. of Phys., NTHU, Taiwan)*Online	Terahertz Physical-Digital Neural Network Imaging	Takayuki Makino
9:30		INV-29a-2	0:30	Hiromichi Hoshina (RIKEN, Japan)	THz Radiation Induces Order-Disorder Transitions in HeLa Cell Membranes	
10:00	Break		0:20			
10:20	THz spectroscopy and techniques	INV-29a-3	0:30	Iwao Hosako (NICT, Japan)	Promising Use Cases of the THz Wireless Communications in the AI era	Takashi Furuya
10:50		INV-29a-4	0:30	Takayuki Makino (FIR UF, Japan)	Fundamental Optical and Lattice Properties of Strongly Correlated Rare-Earth Monoxides	
11:20		29a-5	0:20	Rayko I. Stantchev (NSYU, Taiwan)	Towards in-vivo skin measurements with single-pixel THz spectroscopic cameras	
11:40	Lunch		1:20			
13:00	Corporate Talks	COR-29p-1	0:20	(Contributed talks 20 min)	TBA	Masahiko Tani
13:20	THz spectroscopy and techniques	29p-2	0:20	Jagadishwar R. Sirigiri (Bridge 12 Technologies, Inc., USA)	Photonic Crystal Millimeter Wave Power Enhancer for Generating EUV Radiation for Semiconductor Fabrication and Metrology	
13:40		29p-3	0:20	Chih-Wei Luo (Dept. of Electrophys., NYCU, Taiwan)	THz phonon dynamics in charge-density wave tellurides	
14:00	Break		0:20			
14:20	Magnetic resonance & THz spectroscopy and techniques	INV-29p-4	0:30	Dane McCamey (School of Phys., UNSW, Australia)*Online	TBA	Susumu Okubo
14:50		INV-29p-5	0:30	Elmer Estacio (Natl. Inst. of Phys., UP Diliman, Philippines)	Terahertz emission and detection from low temperature gallium arsenide photoconductive antenna with aluminum arsenide carrier confinement layer	
15:20	Group photo		0:10	*We shall take a photo with all participants just* before *the poster session.*		
15:30	Break		0:20			
15:50	Poster session		1:40		*See List of Poster Presentations.*	Andi Marwanti Panre
17:30	Break		0:30			
18:00	Banquet		2:00		*At Academy Hall*	
20:00	End					

Oct. 30 (Fri)

Start time	*Session*	*No.*	*Time*	*Name (Affiliation)*	*Title*	*Chairperson*
9:00	Spintronics	INV-30a-1	0:30	Kensuke Hayashi (Nagoya Univ.)	Tuning the Resonant Frequency of Antiferromagnetic Resonance for NiO and α-Fe_2O_3 in the 0.1-1 THz Range	Yuya Ishikawa
9:30		INV-30a-2	0:30	Yuki Shiomi (UTokyo)	Spin current generation from nuclear spin dynamics	
10:00	Break		0:20			
10:20	Condensed matter physics & Magnetic resonance	INV-30a-3	0:30	Je-Geun Park (Dept. of Phys. & Astron., SNU, Korea)	Light-matter interaction in van der Waals magnets	Mary Clare Escaño
10:50		INV-30a-4	0:30	Yutaka Fujii (FIR UF, Japan)	Recent Progress in the Development of High-Frequency Electron Spin Resonance Techniques at FIR UF with an Emphasis on Simultaneous ESR and EDMR Measurements of Silicon Quantum Spins	
11:20		30a-5	0:20	Susumu Okubo (CLPI, Kobe-U, Japan)	Zero-Field Splitting and g-Tensor Anisotropy in the Triangular Cupola Antiferromagnet SrCu(OH)3Cl Probed by Terahertz ESR	
11:40	Closing		0:10	Yoshinori Tatematsu (FIR UF)		

11:50 End

The 10th International Workshop on Far-Infrared Technologies (IW-FIRT 2026)

Poster Presentations

Poster session: 15:50~17:30, October 29th (Thu),Mulitpurpose Conference Room, 13th floor, Science Tower I, University of Fukui

Note
The poster board size is 90 cm in width and approx. 180 cm in height. Use detachable stick tape to put up your posters on the poster boards. DO NOT use pushpins. The adhesive tape is available in the poster session room.
A presenter should be in front of each poster board during the following time:
Odd number: 15:50~16:40; even number: 16:40~17:30

No.	*Name of the presenter*	*Title*
P-1	Chia-Chuan Chang	Backward-Field Growth Mechanism in Down-Tapered Gyro-BWOs
P-2	Masaki Nishiura	High-Power ECRH for CHD/CHD-U: Toward Turbulence-Control Experiments and Velocity-Space Physics
P-3	Mokoto Hayakawa	Development of a High-Density Gas-Jet System for Laser Wakefield Ion Acceleration: Interferometric Measurement of the Gas Density Distribution
P-4	Rintarou Kai	Cavity Design and Mode Selection for a 0.8 THz Range Third Harmonic Gyrotron
P-5	Ryuya Komeno	Electron Beam Analysis for a 0.8 THz Range Third Harmonic Gyrotron
P-6	Yuusuke Yamaguchi	Active Temperature Regulation of Biological Samples Irradiated by a THz Gyrotron
P-7	Akinori Kishi	Investigation of the Synthesis Process of High-Entropy Oxide by Microwave Selective Heating
P-8	I Putu Abdi Karya	Electromagnetic Wave Energy-Driven Synthesis of Hydrogen and Carbon Nanotubes from Thermoset Plastics
P-9	Kohei Nakagawa	Pyrolysis of Waste Tires under Microwave Irradiation Using Microwave-Active Catalysts
P-10	Toshiyuki Mizutani	Microwave-Assisted Methanation Using Waste-Derived Crude Hydrogen
P-11	Yuma Hosomi	THz ESR measurements of S = 1/2 kagome lattice antiferromagnet $InCu_3(OH)_6Cl_3$
P-12	Takehiro Miyazawa	Broadband THz ESR Measurements of Multiferroic Material $YCrO_3$ Exhibiting Unusual Antiferromagnetic Resonance
P-13	Takahiro Sakurai	High-Pressure THz Magneto-Optical Study of Black Phosphorus

P-14	Reo Hattori	Development of Microwave Antenna for ODMR Measurement in High-Pressure Diamond Anvil Cell
P-15	Shoki Matsuoka	Development of micro-resonators of ESR around 10 GHz
P-16	Ryosuke Onogi	Fabrication of an RF resonator for solid-state high-resolution MACS-NMR using SBG printing
P-17	Haruki Shinya	Study of Iris Shapes and Dimensions in a Fabry–Pérot Resonator for D-Band ESR
P-18	Yuta Shimizu	Construction of Heterodyne Detection System for mm-wave ESR Measurement with a ^{3}He-^{4}He Dilution Refrigerator
P-19	Akira Fukuda	Spatial Distribution of Dynamic Nuclear Spin Polarization in Multiply-Connected Corbino Geometry of v=2/3 Fractional Quantum Hall States
P-20	Naoto Nakane	Development and Evaluation of a Millimeter-Wave Pulsed ESR System Using a Gyrotron Source
P-21	Yuya Ishikawa	Applications of high-frequency ESR systems using a high-power light source compact gyrotron
P-22	Xuelian Zhang	Development of multi-frequency spin current measurement system using Gyrotron FU CW CI
P-23	Taisei Fukamachi	ESR measurements of $MnCO_3$/Pt Using a gyrotron FU CW CI as a High-Power THz Source
P-24	Atsushi Tani	Observation of Radiation-Induced Radicals in Alanine Using Transmission Electron Spin Resonance with a Compact Gyrotron
P-25	Kyosuke Yabushita	X-band ESR measurements of γ-ray irradiated corals
P-26	Andi Marwanti Panre	X-Band ESR Study of Natural Chrysoprase
P-27	La Ode Safiuddin	Integrated Spin Hamiltonian–Bloch Equation Modeling for Quantitative Reproduction of Continuous-Wave Electron Spin Resonance Spectra:Benchmarking on a $BaCO_3$–TiO_2 Composite and Application to Natural Chrysoprase
P-28	La Agusu	A Harmonic-Domain Polynomial Framework for High-Frequency Continuous-Wave Electron Spin Resonance
P-29	Yuma Okazaki	Millimeter-Wave One-Dimensional Photonic Crystal Resonators in 4H-SiC
P-30	Daisuke Kuwahara	Development of 250 GHz millimeter wave interferometer system
P-31	Ryoma Okada	0.3 THz-band Fast Electro-optic Imaging System using Polarization Image Sensor
P-32	Yuto Shoji	Wide-Range Linearity Evaluation of a Terahertz Detector Based on Response Additivity
P-33	Satyam Priyanshu	Comparison of frequency versus time domain THz spectroscopy for in-vivo skin measurements
P-34	Anam Ishaq	Simultaneous THz and OCT Imaging for Non-Invasive Skin Diagnostics
P-35	Miyu Ogawa	Study of biodegradation of polyethylene succinate in river water using low-frequency vibrational spectroscopy and quantum chemical calculations

P-36	Ritsuki Matsuoka	A Study on Intermolecular Interactions of CA Based on a Comparison with Cellulose I and II Using ATR-FIR Spectroscopy
P-37	Chien-Ming Tu	Photon-drag-induced terahertz emission in novel materials
P-38	Arcturus Gabriel S. Mendenilla	Investigation of Terahertz Emission Characteristics of Low-Temperature Grown Gallium Arsenide Dipole Photoconductive Antennas via Finite Element Analysis
P-39	Ming Che	Cost-Effective FDM-Printed COC Lens Packaging for High-Gain J-Band Photonic THz Transmitters
P-40	Norihiko Hayazawa	External-Modulation-Free THz Time-Domain Spectroscopy Beyond the Fundamental MHz Lock-In Harmonic
P-41	Cancelled	Cancelled
P-42	Ryuki Kashiwagi	Development of a Submillimeter Collector for THz Radiation toward the Detection of Cosmic Background Neutrino Radiative Decay
P-43	Naeemul Islam	Improved Drain Current Stability in AlGaN/GaN HEMTs Using Vanadium-Based Ohmic Contact Engineering
P-44	Joaquin Tuanquin	Electromagnetic response of fabrication-compatible terahertz split-ring resonator metamaterials
P-45	Kenneth Jay Alaba	Generation and Detection of Structured THz Beams via 3D-Printed Phase Plates and Scanning Aperture Time-Domain Spectroscopy
P-46	Mary Clare Escaño	Spin-to-Charge Conversion Mechanisms Underlying THz Transients in 2D- Ferromagnet Heterostructures
P-47	Miezel Talara	Ultra-Narrow Linewidth Terahertz Generation by Microcomb-Assisted Injection Locking of Resonant Tunneling Diode Oscillators
P-48	Alexander De Los Reyes	Development of a 305 GHz sub-terahertz wave spectrometer based on a backward terahertz-wave parametric oscillator and a heterodyne detection system
P-49	Neil Irvin Cabello	Electric Field Stabilization of Two-Color Laser Filaments for Mid-Infrared Sub-Cycle Pulse Generation
P-50	Niña Zambale Simon	Stacked Pulses from a Birefringent Crystal Array as a Gating Field for Background-Free Spectroscopy
P-51	Arvin Lester C. Jusi	Composition Estimation in Plastic Mixtures using Terahertz Time-Domain Coherent Raman Spectroscopy