

Program

ver. 20170220

7/ Mar. (Tuesday)

The registration desk opens from 8:30

Note

All invited talks are 30 minutes talks including the time for discussions (~5 min). Talks of contributed papers indicated by “#” are 20 minutes talks. “‡” indicates awardee of financial support for young researchers. For oral presentations, you can connect your own PC to LCD projector via standard RGB cable (mini D-sub 15 pin connector). If you will bring your presentation file without your own PC, please let us know in advance. For poster presentations, refer to the note in the list of poster presentations.

9:15–9:25 Opening remark

by Vice President for Research, Univ. of Fukui

9:25–10:25 Development and applications of gyrotrons		Chairman: T. Saito
7a-1	9:25	Research Activities on Far Infrared Technology in FIR UF Masahiko Tani (FIR UF)
7a-2	9:55	High Frequency Gyrotrons Development and Application at IAP RAS: Trends and Results Mikhail Yu. Glyavin (Inst. of Appl. Phys., RAS, Russia)

10:25–10:50 Break

10:50–11:50 Development and applications of gyrotrons		Chairman: K. Sakamoto
7a-3	10:50	Frequency Tuning and Pulling in Gyrotrons Gregory S. Nusinovich (Univ. of Maryland, USA)
7a-4	11:20	Diplexers for High-Power Applications in Millimeter and THz Waves – an Overview Walter Kasperek (Univ. of Stuttgart, Germany)

11:50–13:30 Lunch

13:30–15:20 Development and applications of gyrotrons		Chairman: Y. Tatematsu
7p-1	13:30	Development of 303-GHz High Power Pulsed Gyrotron Yuusuke Yamaguchi (FIR UF)
7p-2	14:00	Development of Sub-Terahertz Gyrotron for DEMO Keishi Sakamoto (National Inst. for Quantum and Radiological Sci. and Tech.)
7p-3	14:30	Towards 240 GHz High Power Fusion Gyrotrons – KIT Research Status John Jelonek (Karlsruhe Inst. of Tech., Germany)
7p-4	15:00	Key Components Development for the KIT 2-MW 170-GHz Coaxial-Cavity Longer-Pulse Modular Prototype Gyrotron #,‡ Sebastian Ruess (Karlsruhe Inst. of Tech., Germany)

15:20–15:45 Break

15:45–17:35 Development and applications of gyrotrons		Chairman: S. Sabchevski
7p-5	15:45	Recent Results on Sub-THz Gyrotron Devices for DNP NMR at MIT Michael A. Shapiro (Massachusetts Inst. of Tech., USA)
7p-6	16:15	Design and Development of High-Frequency CW Gyrotrons for NMR/DNP Applications Monica Blank (Communications and Power Industries, USA)
7p-7	16:45	Advanced Instrumentations for DNP-Enhanced Solid-State NMR Yoh Matsuki (Osaka Univ.)
7p-8	17:15	High-Stable Operation of CW Clinotrons and CW Gyrotrons in THz Range for DNP NMR Spectroscopy and Other Applications # A. Kuleshov (Visiting prof. of FIR UF & O. Ya. Usikov Inst. for Radiophys. and Electronics of NAS, Ukraine)

17:35–18:00 Break

18:00–20:00 Banquet

8/ Mar. (Wednesday)

The registration desk opens from 9:00

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9:00–10:20 Pulsed and CW ESR		Chairman: H. Ohta
8a-1	9:00	Terahertz ESR in Quantum and Frustrated Spin Systems Masayuki Hagiwara (Osaka Univ.)
8a-2	9:30	Pulsed Electron Paramagnetic Resonance Experiments with a Quasi-CW Free-Electron Laser Mark Sherwin (Univ. of California, Santa Barbara, USA)
8a-3	10:00	Multi-Frequency ESR Studies on Quantum Frustrated Magnets with Exotic Anisotropy in Pulsed High Magnetic Fields #‡ Daichi Yoshizawa (Osaka Univ.)

10:20–10:45 Break

10:45–11:45 THz spectroscopy and techniques		Chairman: C.-L. Pan
8a-4	10:45	Narrowband Terahertz Generation by an Ultrashort Laser Pulse in Bulk LiNbO ₃ Michael I. Bakunov (Univ. of Nizhny Novgorod, Russia)
8a-5	11:15	Nonlinear Properties of Semiconductors Under High Intensity THz Radiation Koichiro Tanaka (Kyoto Univ.)

11:45–12:00 Photography

12:00–13:30 Lunch

13:30–15:30 Generation, application and simulation of electromagnetic wave		Chairman: S. Mitsudo
8p-1	13:30	Rocket Propulsion Powered by a Gyrotron Kimiya Komurasaki (The Univ. of Tokyo)
8p-2	14:00	Iron Making by Electromagnetic Heating at the Frequency of 2.45 GHz Keiichiro Kashimura (Chubu Univ.)
8p-3	14:30	An Overview of the Simulation Tools for Design and Optimization of High Power / High Frequency Gyrotron Oscillators at KIT # Stefan Illy (Karlsruhe Inst. of Tech., Germany)
8p-4	14:50	Development of a New Vector Analysis Code for the Simulation of Electromagnetic Fields in the Quasi-Optical System of Gyrotrons #‡ Alexander Marek (Karlsruhe Inst. of Tech., Germany)
8p-5	15:10	Terahertz Wave Generation Based on Surface Wave Resonator # Kazuo Ogura (Niigata Univ.)

15:30–15:50 Break

15:50–17:30 Poster session		Chairman: Y. Fujii
P-1 ~P-31	See List of Poster Presentations.	

9/ Mar. (Thursday)

The registration desk opens from 9:00

Note

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9:00–10:20 THz spectroscopy and techniques		Chairman: D. S. Bulgarevich
9a-1	9:00	Terahertz Molecular Fingerprints of Cancer DNA Joo-Hiuk Son (Univ. of Seoul, Korea)
9a-2	9:30	Desorption of the Organic Solids by the Intense Picosecond THz-FEL Pulses Masaya Nagai (Osaka Univ.)
9a-3	10:00	Recent Developments of Multi-Extreme THz ESR in Kobe # Hitoshi Ohta (Kobe Univ.)

10:20–10:45 Break

10:45–12:05 THz spectroscopy and techniques		Chairman: K. Kurihara
9a-4	10:45	Dielectric Properties of Advanced PCBs in the MMW and Sub-MMW Frequency Range Ci-Ling Pan (National Tsing Hua Univ., Taiwan)
9a-5	11:15	Nonlinear Optical Responses of Non-Equidistant Landau Levels in Graphene in Terahertz Frequency Range Go Yumoto (The Univ. of Tokyo)
9a-6	11:45	Terahertz Coherent Raman Spectroscopy by Using Frequency-Chirped Picosecond Optical Pulses # Masahiko Tani (FIR UF)

12:05–13:40 Lunch

13:40–14:50 DHP-TST special session		Chairman: M. Yu. Gylavin
9p-1		Establishment of the International Consortium and Its Renewal Toshitaka Idehara (FIR UF)
9p-2		Accelerating the Collaboration Between the Members of the International Consortium for Development of High-Power Terahertz Science and Technology Svilen Sabchevski (FIR UF & Institute of Electronics of BAS, Bulgaria)
9p-3		Panel discussion

14:50–15:00 Closing

Poster Presentations: 15:50~17:30, 8th March at Conference Room on 13th floor of Science Tower I

Note

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 on 8th March. Poster presentations are encouraged to be put up from 12:30 on 7th March until 17:30 on 8th March. (The boards for posters are available in the conference room from 9:00 on 7th March until 17:30 on 8 March.) The poster board size is 90 cm in width and 180 cm in height. Use detachable stick tape to put up your posters on the poster boards. DO NOT use pushpins. The detachable stick tape is available in the poster session room.

No.	Name of the first author	Title
P-1	Keisuke Tominaga (Kobe Univ.)	Development of Sub-Terahertz Time-Domain Spectroscopy and Its Application to Molecular Science
P-2	Fumiyoshi Kuwashima (Fukui Univ. of Tech.)	High Efficient THz-TDS System Using Laser Chaos and Super Focusing with Metal V-grooved Wave Guides
P-3	Kosaku Kato (Osaka Univ.)	Yellow luminescence of ZnO with the Irradiation of Sub-Terahertz Waves from a Gyrotron
P-4	Hikomitsu Kikuchi (Univ. of Fukui)	ESR Study on Quantum Frustrated Magnet $KCu_3OCl(SO_4)_2$
P-5	Mary Clare Escano (Univ. of Fukui)	Characteristics of Band Splitting in GaAs Due to Spin-Orbit Interaction from First-Principles Methods
P-6	Dmitry S. Bulgarevich (National Inst. for Materials Sci.)	GHz-TDS Imaging for Materials NDT
P-7	Kunizo Ohkubo (Visiting prof. of FIR UF)	Attenuation of Hybrid Modes in Corrugated Waveguides at Frequencies above the Bragg Frequency
P-8	Osamu Morikawa (Japan Coast Guard Academy)	Characterization of Focusing of Sub-THz Radiation Using Insulator Aperture
P-9	Takahiro Sakurai (Kobe Univ.)	Development of Ceramics for the Inner Parts of the Pressure Cell by Electromagnetic Wave Heating
P-10	Akira Fukuda (Hyogo Coll. of Med.)	ESR Experiments of P Impurities in Si and Dynamic Nuclear Polarization Aimed at the Application for Qubits
P-11	Takayasu Kawasaki (Tokyo Univ. of Sci.)	Analysis of Dissociation Mechanism of Amyloid Fibrils by Using Terahertz-Time Domain Spectroscopy
P-12	Takayuki Yamazaki (The Univ. of Tokyo)	Search for Hidden Photon Dark Matter in the Millimeter Wave Region with a Dish Antenna
P-13	Shin Kubo (National Inst. for Fusion Sci.)	Demonstration of the Vortex Feature of Cyclotron Radiation from Electrons Accelerated by High Power Right-Hand Circularly Polarized Millimeter Wave
P-14	V. N. Manuilov (Inst. of Appl. Phys., RAS, Russia)	Level of the Ion Compensation of the Space Charge in the Gyrotron Electron Beams and its Influence on the Output Tube Parameters

P-15	Moe Iizawa (FIR UF)	Frequency Tunability in Multi Cavity Modes in Gyrotron FU CW XA
P-16	M. Fukunari (FIR UF)	Millimeter Wave Discharge and Its Application to the Rocket Propulsion
P-17	Takumi Hirobe (FIR UF)	Transmission Test of the 303-GHz Gyrotron Power by Corrugated Waveguides
P-18	Ryosuke Ikeda (National Inst. for Quantum and Radiological Sci. and Tech.)	Development of ITER Gyrotron in QST
P-19	Tokihiko Tokuzawa (National Inst. for Fusion Sci.)	Study of THz Pulse Wave Application for the Plasma Diagnostics
P-20	Dazhi Li (Osaka Univ.)	Terahertz Radiation from a Grating Structure with Graphene
P-21	M. Fujita (Univ. of Toyama)	Frequency Measurement of Rotational Transitions of $^{15}\text{NH}_3$ Using Evenson-Type Tunable Far-Infrared Spectrometer
P-22	Ali Khumaeni (FIR UF)	Effect of Pump Pulse Width in Generating Highly-Intense Terahertz Pulses Using Tilted-Pump-Pulse-Front (TPPF) Scheme at 800 nm
P-23	Dhonny Bacuyag (FIR UF)	Discriminating Surface Defects in GaAs(001)- $\beta_2(2\times 4)$ by First-Principles Method
P-24	Hideaki Kitahara (FIR UF)	Electromagnetic-Wave Analysis of Tapered Parallel-Plate Wave-Guide by Finite-Difference Time-Domain Method
P-25	Shun Nakae (FIR UF)	Terahertz Coherent Raman Spectroscopy Using Terahertz Radiation by Zinc Telluride Crystal
P-26	Heishun Zen (Kyoto Univ.)	Development of Quasi-Monochromatic THz Coherent Undulator Radiation Source at Institute of Advanced Energy, Kyoto University
P-27	Kiwamu Kusama (Univ. of Fukui)	Characteristics of THz Plasmonic Superfocusing in Metallic V-Groove Tapered Waveguides
P-28	Yutaka Fujii (FIR UF)	Considerations on the Overhauser Effect from the Viewpoint of the Non-Equilibrium Phase Transition
P-29	Susumu Okubo (Kobe Univ.)	Far-Infrared ESR Measurements of $S=1/2$ Frustrated J_1 - J_2 Chain System $\text{NaCuMoO}_4(\text{OH})$
P-30	Yuya Ishikawa (Univ. of Fukui)	Development of Millimeter-Wave Band Fabry-Pérot Type Resonator for ESR/NMR Double Magnetic Resonance Measurements
P-31	Yoshiaki Tsunawaki (Visiting prof. of FIR UF & Osaka Sangyo Univ.)	Formation of Octacalcium Phosphate under the Microwave Irradiation