

Schedule

4th International Workshop on Far-Infrared Technologies 2012 (IW-FIRT2012)

7(Wed) -9(Fri) March, 2012

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7 Mar. (Wed)					8 Mar. (Thu)					9 Mar. (Fri)				
session	No.	name	title	chairperson	session	No.	name	title	chairperson	session	No.	name	title	chairperson
9:00 The registration desk opens from 8:30.					Terahertz spectroscopy					Sources and detectors for THz spectroscopy				
Opening remark by Director Vice President for Research and Evaluation					8a-1 Michael I. Bakunov (Univ. Nizhny Novgorod, Russia)					9a-1 Shigeki Okajima (Chubu Univ.)				
Opening talk					8a-2 Kodo Kawase (Nagoya Univ.)					9a-2 Masahiko Tani & Kohji Yamamoto (FIR FU)				
7a-1 Teruo Saito (FIR FU)					8a-3 Ci-Ling Pan, Jim-Wein Lin (National Tsing-Hua Univ., Taiwan)					9a-3 Elmer Estacio (FIR FU)				
Research activities on far infrared technology in FIR FU					8a-4 Masanori Hangyo (Osaka Univ.)					9a-4 Gerald Bastard (Ecole Normale Supérieure, France)				
M. Yu. Glyavin					Prospects of Sub-THz Wireless Communication and Sensing Systems for the Next Generation					Terahertz emission from femtosecond laser excited indium oxide films and GaAs/AlGaAs core-shell nanowires				
10:00 Gyrotron development					Break (10:25-10:45)					Break (10:40-11:00)				
7a-2 Manfred Thumm (Karlsruhe Inst. Tech., Germany)					Break (10:40-11:00)					9a-5 Tsun-Hsu Chang (National Tsing-Hua Univ., Taiwan)				
Sub-Terahertz Emission by Magnetized Plasma at Two-Stream Instability of REB and by Two-Channel Planar FEM with Combined Electrodynamic System					Terahertz spectroscopy					9a-6 Jagadish C. Mudiganti (FIR FU)				
M. Thumm					8a-5 Gun-Sik Park (Seoul National Univ., Korea)					Design and Development of a Sub-Terahertz Compact Second Harmonic Gyrotron FU CW CI				
Gyrotron development and applications					8a-6 Christopher T. Que (FIR FU)					9a-7 Yuusuke Yamaguchi (FIR FU)				
7a-3 Keishi Sakamoto (JAEA, Guest Prof. FIR FU)					8a-7 Kazuyoshi Kurihara (Univ. Fukui)					Formation of Laminar Electron Flow for 300 GHz High-Power Pulsed Gyrotron				
Development of Gyrotron and EC Technologies in JAEA					Researches on biomedical systems using THz radiation					Closing				
M. Thumm					1. 55 Micron Laser Excitation of GaAs and InAs Thin Films Grown on GaSb Substrates for Terahertz Emission					Excursion				
7a-4 Michael I. Petelin (Inst. of Appl. Phys., Russia; Guest prof. of FIR FU)					Photo					We are planning to go for an excursion after the workshop. The detailed plan will be announced by e-mail and in workshop webpage.				
Problems of High-Power Millimeter Wave Beam Control					We shall take a photo with all participants just after the morning session.									
7a-5 Takashi Shimosuma (National Inst. for Fusion Science)					Lunch									
Development of a High Power Gyrotron System for Plasma Experiments in the Large Helical Device					12:25-13:40									
7a-6 Yoshinori Tatematu (FIR FU)														
Development of gyrotrons with an internal mode convertor, Gyrotron FU CW G-series														
12:00 Lunch														
12:25-13:40														
13:00														
Gyrotron development and applications					Applications of gyrotrons									
7p-1 Toshitaka Idehara (FIR FU)					8p-1 Kaz Hiramawa (Univ. Tokyo)									
Development and applications of high frequency harmonic gyrotrons					Physics of Bloch oscillation in semiconductor superlattices under intense sub-terahertz radiation from a gyrotron									
K. Sakamoto					8p-2 Takayuki Yamasaki (Univ. Tokyo)									
Cooperative research works with institutions in the world -					Direct Measurement of the Hyperfine Structure of the Ground State Positronium using High Power Sub-THz Radiation									
7p-2 Mikhail Yu. Glyavin (Inst. of Applied Physics, Russia)					8p-3 Norio Miyoshi (Univ. of Fukui)									
Sub-THz gyrotrons with improved electrostatics and electron-optical systems					Application of Gyrotron for Hyperthermia of a Tumor Model and a Possibility of the Combination Therapy of Cancer									
7p-3 Gregory S. Nusinovich (Univ. of Maryland, USA)					8p-4 Fumitaka Horii (Guest Prof. FIR FU)									
Possible application of sub-THz gyrotrons for remote detection of concealed radioactive materials					Development of a DNP-enhanced CP/MAS NMR system and its application to the characterization of the surface structure of nanomaterials									
15:00					8p-5 I. Nyoman Sudiana (FIR FU)									
7p-4 Ryosuke Ikeda (FIR FU)					Submillimeter Waves Sintering of Alumina Ceramics									
A table-top 200 GHz gyrotron FU CW CII with an internal mode converter					Break (15:45-16:15)									
Break (15:30-15:50)														
16:00														
Magnetic resonance					Poster session									
7p-5 Toshimichi Fujiwara (Osaka Univ.)					See Note.									
Application of Continuously Frequency-Tunable Sub-MMW Gyrotron to Dynamic Nuclear Polarization for NMR spectroscopy at 14.1 T and 30 K					(16:15~17:45) at Academy Hall									
7p-6 Ray Dupree (Univ. Warwick, UK)					with sencha tea ceremony (seat availability is limited)									
A DNP-enhanced solid-state MAS NMR spectrometer designed for operation at 6.7 and 14.1 T using quasi-optical microwave transmission														
7p-7 SangGap Lee (Korea Basic Science Inst., Korea)														
Measurement of ultras-small magnetic moment by magnetic resonance force microscopy														
17:00														
7p-8 Sergey Vasiliev (Turku Univ., Finland)														
130 GHz ESR Study of Atomic Hydrogen in Solid H ₂ Matrixes														
7p-9 Seitaro Mitsudo (FIR FU)														
Application of gyrotron for material research in FIR FU														
18:00					Banquet									
					(17:45~20:00) at Academy Hall									

Note

All talks except for 7a-1 and 7p-1 are 25 minutes talks including the time for discussions (~5 min). 7a-1 is 40 minutes talk and 7p-1 is 35 minutes talk.

For oral presentations, you can connect your own PC to LCD projector via standard RGB cable.

Poster presentations should be put up from 16:15 until 19:00 on 8 Mar. (The boards for posters are open from 16:00 until 20:00.)