TERA RJUSE 2018 TECH WARSAW

7th Russia-Japan-USA-Europe Symposium on Fundamental & Applied Problems of Terahertz Devices & Technologies & 4th TERAMIR International Laboratory Workshop

September 17 - 21, 2018, Warsaw, Poland

3rd Call for Papers

PAN Polska Akademia Nauk

unipress Institute of High Pressure Physics Polish Academy of Sciences

PIB Instytut

FACULTY OF PHYSICS University of Warsaw

University of Warsaw

Scope:

The symposium aims to bring together researchers who tackle "Fundamental & Applied Problems in Terahertz Devices & Technologies", so as to stimulate discussions on the state-of-the-art results and promote the collaborations.
Based on the successful organizations of preceding RJUSE symposia in Japan, Russia, and USA, the 7th RJUSE will be organised in Warsaw, Poland, on Sep. 17–21, 2018. The symposium will be conducted together with 4th workshop of International Laboratory - TERAMIR. This French-Russian-Polish laboratory focuses on THz and infrared properties of topological insulators and Dirac matter. The technical program will include invited talks and poster presentations.

Topics

THz physics: Carrier transport & quantum effects in devices, Nonequilibrium carrier dynamics, 2D materials & their heterostructures, Terahertz properties of Dirac matter.
THz devices & electronic/optical components: Sub-THz/THz transistors, mixers, etc., Metamaterials, photonic crystals, Surface-plasmon-polaritons, Electronic/photonic/plasmonic devices, Nonlinear optics based devices, Superconductors, bolometers, etc.
THz applications: Wireless communications, Imaging Spectroscopy, Astronomy

Symposium Chairs:

Wojciech Knap (CNRS Montpellier, France & IHPP PAS Unipress, Poland)
Jerzy Łusakowski (Faculty of Physics, University of Warsaw, Poland)
Taiichi Otsuji (Tohoku University, Japan)

Organizing Committee:

Jacek Przybytek, Grzegorz Cywiński, Dmytro But
(Institute of High Pressure Physics, Polish Adademy of Sciences)

Secretary:

Elżbieta Krajewska (Polski Instytut Rozwoju Biznesu)

Important Dates

Abstract submission: **by June 30, 2018**
Author acceptance notification: **July 15, 2018**
„Early-bird" registration: **by August 15, 2018**
Symposium dates: **Sep. 17– 21, 2018**

Registration open !

Registration follows by sending a „Registration form" (http://pirbinstytut.pl/index.php/registration) to an e-mail address lia@unipress.waw.pl and paying the conference fee by bank transfer or credit card:

regular by August 15th	student by August 15th	regular after August 15th	student after August 15th	regular on-site (cash only)	student on-site (cash only)
1300 PLN	750 PLN	1650 PLN	1000 PLN	1650 PLN	1000 PLN
1 € ≈ 4.3 PLN	1 $ ≈ 3.6 PLN				

Abstract submission

Abstract submission follows by sending to an e-mail address lia@unipress.waw.pl in form specified in abstract template (.doc):
http://pirbinstytut.pl/index.php/abstract-submission
Abstracts will be published in conference booklet and will be available in pdf form in flash USB memory.

Sponsors

- Polish Academy of Sciences (PAS)
- Institute of High Pressure Physics PAS
- CEZAMAT (Centre for Advanced Materials and Technologies, Warsaw University of Technology)
- ORTEH LLC, Poland
- T-Waves Technologies, France
- TOPTICA Photonics, Germany
- Virginia Diodes, Inc, USA

Invited talks

Session Tue-1	**THz Spectroscopy**
Kawase	Multiwavelength THz source for one-pulse spectroscopy
Krotkus	THz excitation spectroscopy - a method for investigating semiconductor band structure
Chernomyrdin	Terahertz pulsed spectroscopy and continuous-wave imaging of soft biological tissues
Session Tue-2	**Dirac Matter and Graphene Heterostructures**
Ganichev	Terahertz edge photocurrents in graphene in the quantum Hall regime
Orlita	Magneto-optics of electrons in conical bands
Kachorovskii	Tunneling Aharonov-Bohm interferometer on helical edge states
Khokhlov	Terahertz photoconductivity in HgCdTe-based heterostructures in magnetic field
Potemski	Excitons in mono- and multi-layers of transition metal dichalcogenides
Session Tue-3	**Industrial Session**
Hessler	THz Schottky Diode Based Transceivers : From Test & Measurement to Cube Satellites
Deninger	Terahertz on Speed: Fast TD-THz Techniques and their Applications
Archier	Terahertz camera for automotive industry
Sypek	THz diffractive optics
Session Wed-1	**IR & THz Devices**
Rogalski	Antimonide-based infrared detectors - A new perspective
Qin	Terahertz Detectors based on Gallium Nitride HEMTs: from direct detection to heterodyne detection
Feiginov	THz sources small and simple: resonant-tunneling-diode oscillators
M. Ryzhii	Quantum-well HgTe-CdHgTe heterostructures for interband THz and IR detection
Session Wed-2	**THz communications and sensing**
Nagatsuma	Exploring 600-GHz band for communications and sensing
Satou	Carrier Frequency Down-Conversion from Optical to MMW/THz Data Signal Using InP-HEMT
Vaks	Application of quantum cascade lasers and superlattice devices for high resolution THz spectroscopy
Session Wed-3	**THz Electronic Detectors and Sources**
Aizin	Slow Plasma Waves for THz Electronic Detectors and Sources
Vainshtein	Interferometrically enhanced contrast of sub-terahertz picosecond-domain histology, utilizing a miniature collapsing-field-domain source
Tredicucci	TBA
Session Thu-1	**THz Photonics & Metamaterials**
Vasanelli	Cooperative phenomena and ultra-strong light-matter coupling for tailored thermal emission
Valusis	Silicon diffractive optics for THz beam manipulation and applications for THz imaging
Dolganova	Terahertz Scattering in Quasi-Ordered Structures: Impact on Imaging Applications
Session Thu-2	**THz Photodetectors & Bolometers I**
Preu	20 ps temporal resolution of THz pulses recorded with (Al)GaAs high electron mobility transistors
Goltsman	State of the art of THz hot-electrons bolometers
ElFatimy	Graphen ultrasensitive wideband bolometers
Otani	Modification of intermolecular structures of soft materials by intense THz radiation
Session Thu-3	**Dirac Matter II**
S. Mikhailov	Nonlinear terahertz electrodynamics of graphene
Krishtopenko	TBA
Teppe	Landau level spectroscopy of HgCdTe and InAs/GaSb based topological materials
Gavrilenko	THz stimulated emission from HgTe QWs
N. Mikhailov	MCT heterostructures grown by MBE for IR and THz detectors
Session Fri-1	**Graphene and Carbon Nanotubes for THz Devices**
Kawano	Carbon nanotube omnidirectional terahertz cameras
Fedorov	THz investigations of carbon structures
Meziani	Terahertz detection by Graphene multifinger Field Effect Transistors
Svintsov	Origins of terahertz photoresponse in high-mobility graphene heterostructures
Session Fri-2	**THz Plasmonic Devices**
Popov	Plasmonic photocurrents in graphene nanostructures
Golub	Ratchet effects in structures with lateral superlaticces
Otsuji	Emission and amplification of terahertz radiation using Dirac Fermions and plasmons in graphene
Session Fri-3	**THz Photodetectors & Bolometers II**
Shapoval	Periphery optical matching for the sensitive element of THz detector
Ponomarev	Terahertz photoconductive materials with plasmonic gratings: modeling and experiment
Kopyt	Measurements of the responsivity of FET-based detectors of sub-THz radiation
Zagrajek	Terahertz activity in Warsaw: detectors, spectroscopy, imaging

Web site: *http://pirbinstytut.pl/index.php/rjuse-teratech-2018*
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