

# 5<sup>th</sup> Russia-Japan-USA-Europe Symposium on Fundamental & Applied Problems of

## Terahertz Devices & Technologies (RJUSE TeraTech-2016)

Oct. 31 – Nov. 4, 2016

Sakura Hall, Katahira Campus, Tohoku University, Sendai, Japan

### Scope

Terahertz (THz) electromagnetic waves and phenomena in the THz range are explosively investigated yet not fully unveiled in broad areas of sciences & technologies ranging from fundamental physics to commercial applications.

The symposium aims to bring together researchers who tackle "Fundamental & Applied Problems in Terahertz Devices & Technologies", so as to stimulate discussions on their state-of-the-art results and promote their collaborations.

Based on the successful organizations of preceding symposiums in Japan, Russia, and USA, the 5th RJUSE will be back in RIEC, Tohoku University, Sendai, Japan, on Oct. 31 – Nov. 4, 2016. The technical program will include plenary/invited/contributed talks and poster presentations.

### Plenary Speakers

**Masahiro Asada** Tokyo Inst. Technology, Japan  
**Vladimir Falko** Manchester Univ., UK  
**Susumu Komiyama** Univ. Tokyo, Japan  
**Junichiro Kono** Rice Univ., USA

### Invited Speakers

**Alexey Belyanin** Texas A&M U., USA  
**Dominique Coquillat** CNRS-Université Montpellier 2, France  
**Alexander A. Dubinov** IPM, RAS, Russia  
**Denis Fateev** IREE, RAS, Russia  
**Gregory N. Goltsman** Moscow State Pedagogical U., Russia  
**Manfred Helm** Helmholtz-Zentrum Dresden-Rossendorf, Germany  
**Kazu Hirakawa** U. Tokyo, Japan  
**Debdeep Jena** Cornell University, USA  
**Kodo Kawase** Nagoya U., Japan  
**Wojciech Knap** CNRS-Université Montpellier 2, France  
**Jean-Francois Lampin** IEMN, UMR CNRS 8520, France  
**Yahya M. Meziani** Universidad de Salamanca, Spain  
**Vladimir V. Mitin** U. Buffalo, USA  
**Sergey V. Morozov** IPM, RAS, Russia  
**Hartmut Roskos** Johann Wolfgang Goethe-Universität, Germany  
**Sergei Shapoval** IMTHPM, RAS, Russia  
**Dmitry Svintsov** IPT, RAS, Russia  
**Christopher J. Stanton** U. Florida, USA  
**Yuma Takida** RIKEN Sendai, Japan  
**Wataru Terashima** RIKEN Sendai, Japan  
**Masayoshi Tonouchi** Osaka U., Japan  
**Stanislav O. Yurchenko** BMSTU, Russia

### Sponsors

- RIEC: Research Institute of Electrical Communication, Tohoku University, Japan
- Inoue Foundation for Science
- Intelligent Cosmos Scientific Foundation
- The Murata Science Foundation



### Topics

of the symposium include but not limited to:

- **THz emission & detection**
  - Electronic/photonic/plasmonic devices
  - Nonlinear crystals
  - Superconductors, bolometers, etc.
- **THz devices & electronic/optical components**
  - Sub-THz/THz transistors, mixers, etc.
  - Metamaterials, photonic crystals, and surface-plasmon-polariton waveguides
- **THz physics**
  - Carrier transports & quantum effects in devices
  - Nonequilibrium carrier dynamics
  - 2D materials & their heterostructures
  - Electron-/phonon-/photon-/plasmon-related phenomena & their interactions
- **THz applications**
  - Wireless communications
  - Imaging
  - Spectroscopy
  - Astronomy

### Important Dates

Web site & abstract submission open: **Apr. 29, 2016**  
 Abstract submission (2-4 pages): **by Jul. 31, 2016**  
 Author acceptance notification: **Aug. 15, 2016**  
 Pre-registration (bank transfer): **by Sep. 30, 2016**  
 Symposium dates: **Oct. 31 – Nov. 4, 2016**

### Organizers

**Symposium Chair:** Akira Satou (Tohoku U., Japan)

#### Organizing Committee:

Akira Satou, Taiichi Otsuji, Victor Ryzhii, Tetsuya Suemitsu, Stephane Boubanga-Tombet, Takayuki Watanabe (Tohoku U., Japan); Maxim Ryzhii (U. Aizu, Japan)

#### Secretaries:

Deepika Yadav & Fuzuki Kasuya (Tohoku U., Japan)

#### Steering Committee:

Valeriy Karasik (Bauman Moscow State Technical U., Russia)  
 Taiichi Otsuji (Tohoku U., Japan)  
 Victor Ryzhii (Tohoku U., Japan)  
 Vladimir V. Mitin (U. Buffalo, USA)  
 Michael S. Shur (Rensselaer Polytechnic Inst., USA)  
 Sergei Shapoval (IMTHPM, RAS, Russia)  
 Hans Harthnagel (Technical U. Darmstadt, Germany)  
 Wojciech Knap (U. Montpellier 2, France)

**Web site:** <http://www.otsuji.riec.tohoku.ac.jp/RJUSE-TeraTech-2016>

**Contact:** [rjuse-teratech-2016@ml.riec.tohoku.ac.jp](mailto:rjuse-teratech-2016@ml.riec.tohoku.ac.jp)