

**International Symposium THz-Nsk-2010**  
**“Terahertz Radiation: generation and applications”**  
**joined with Scientific School-Workshop**  
**Novosibirsk, July 26 – August 1, 2010**

**First announcement**

The International Symposium “**Terahertz Radiation: generation and applications**” is devoted to the discussion on basic research and applications of terahertz (THz) radiation.

**Organizers of the Symposium**

Budker Institute of Nuclear Physics Siberian Branch of Russian Academy of Sciences (BINP SB RAS), Lomonosov Moscow State University (MSU), Novosibirsk State University (NSU), and Institute of Applied Physics RAS (IAP RAS) (Nizhny Novgorod) with the support from the Russian Foundation for Basic Research, Ministry of Education and Science of the Russian Federation.

**Co-chairs of the Symposium Organizing Committee:**

Kulipanov G.N.            BINP SB RAS, Novosibirsk  
Litvak A.G.                IAP RAS, Nizhny Novgorod

**Deputy Co-chairs:**

Knyazev B.A.            NSU, Novosibirsk  
Shkurinov A.P.         MSU, Moscow

**Organizing Secretary:**

Mezensteva L.A., BINP SB RAS, Novosibirsk

**Symposium Program Committee:**

Arzhannikov A.V. (NSU, Novosibirsk)  
Bogomolov G.D. (IPP RAS, Moscow)  
Bratman V.L. (IAP RAS, Nizhny Novgorod)  
Cherepenin V.A. (IRE RAS, Moscow)  
Chesnokov E.N. (ICKC SB RAS, Novosibirsk)  
Chugui Yu.V. (TDISIE, Novosibirsk)  
Dvurechensky A.V. (ISP SB RAS, Novosibirsk)  
Garnov S.V. (IGP RAS, Moscow)  
Khohlov D.R. (MSU, Moscow)  
Kozlov S.A. (IFMO, St. Petersburg)  
Krasilnik Z.F. (IMP RAS, Nizhny Novgorod)  
Peltek S.E. (ICG SB RAS, Novosibirsk)  
Petrov A.K. (ICKC SB RAS, Novosibirsk)  
Pickalov V.V. (ITAM SB RAS, Novosibirsk)  
Potaturkin O.I. (IAE SB RAS, Novosibirsk)  
Silantyev S.V. (Moscow)  
Tolbanov O.P. (SPTI at TSU, Tomsk)  
Tsiganov S.A. (RFBR)  
Sizov F.F. (IPS NAS, Ukraine)  
Sukhorukov A.P. (MSU, Moscow)  
Suvorov E.V. (IAP RAS, Nizhny Novgorod)  
Vinokurov N.A. (BINP SB RAS, Novosibirsk)

## Symposium topics

1. Basis of generation of terahertz radiation. Pulsed and continuous wave THz sources, including generators using electron beams.
2. Detection of terahertz radiation. Recording and processing of terahertz images. Terahertz tomography and holography. Spectroscopy and metrology in terahertz frequency range.
3. Study of materials (including nano- and meta-materials) using terahertz radiation.
4. Pulsed terahertz radiation of high intensity and its applications to study and control the ultrafast processes in physics, chemistry, and biology. Pulsed terahertz spectroscopy.
5. Terahertz microscopy, including near-field terahertz microscopy.
6. Development of fundamental principles of terahertz lidar technique and terahertz communication with terahertz radiation.
7. Terahertz non-destructive detection and development of security aimed systems. Biomedical applications of terahertz radiation.

The Organizing Committee is ready to consider suggestions on introduction of additional topics to the Symposium Program.

## Symposium Venue

Symposium sessions will take place at Budker Institute of Nuclear Physics SB RAS and will include the 40-minute plenary lectures, 20-minute oral talks and poster presentations.

## Registration

All the Symposium participants are invited to fill out the registration form through the Symposium site: <http://ssrc.inp.nsk.su/THz-Nsk-2010>. The registration will be opened in February 2010. Participants to the THz-Nsk-2010 that wish to contribute to the Symposium program are required to submit electronically a brief summary of their presentation by filling out the application forms at the Symposium site by 19 April 2010. The forms include the presentation title, abstract, and the expected form of presentation (oral or poster). Information with the Program Committee decision will be e-mailed to each participant.

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## Key dates:

The 1 <sup>st</sup> announcement and the call for abstract submission	<b>25 February</b>
The 2 <sup>nd</sup> announcement detailing the Symposium format	<b>12 March</b>
Deadline for abstract submission	<b>19 April</b>
The 3 <sup>rd</sup> announcement (notification of the Symposium participants on the Program Committee decision and rules for three-page paper submission)	<b>30 April</b>
Deadline for three-page paper submission	<b>31 May</b>

**Symposium language:**

The lectures and oral presentations may be delivered in Russian or English. Demonstration materials of oral presentations should be prepared only in English.

**Publications:**

- Symposium Proceedings with three-page papers will be published by the beginning of the Symposium. The Proceedings will be officially registered as a scientific publication, with assignment of an ISBN code.
- Selected papers presented at the Symposium will be published in special issues of the following journals:
  - Radiophysics and Quantum Electronics,
  - Vestnik Novosibirsk State University. Physics,
  - International Journal of Infrared, Millimeter, and Terahertz Waves.

**Registration fee:** The registration fee is 350 euro. The fee covers the conference sessions, publications, information materials, coffee breaks, lunches, a banquet, and one excursion. In case of additional financing is received, a limited number of grants for financial support of participants of the Symposium will be given. The requests for the financial support should be submitted to Organizing Committee until May, 31 2010

**Exhibitions:**

Exhibitions of equipment for experts in the THz radiation field will be organized within the framework of the Symposium. Applications for exhibits should be submitted to the Organizing Committee.

**Symposium program structure:**

- From Monday, July, 26 till Wednesday, July, 28: plenary lectures, oral talks and poster sessions.
- In the evening of Wednesday, July, 28: departure for Altai, the actual place to be specified later (arrival early Thursday, July, 29). The cost of the Altay trip is not covered by the registration fee. The detailed program of the trip and its cost will be given at the Symposium site by the end of February.
- Thursday July, 29 to Saturday, July, 31: stay in Altai and "round table" sessions in the evenings.
- Sunday, August, 1 2010: Coming back from Altai (arrival in Novosibirsk by night).

## **Scientific School-Workshop**

### “Terahertz radiation: generation and application”

The **Scientific School-Workshop** program will include 40-minute lectures by leading Russian and foreign scientists on actual topics of terahertz radiation generation and their applications, special reports on recent research results and oral reports by the School students at a special session. The program of the Scientific School-workshop is being created now.

A state standard Certificate will be given after the School.

#### **Chairmen of the Organization committee of the School-Workshop:**

Arzhannikov A.V. (NSU, Novosibirsk)

Makarov V.A. (MSU, Moscow)

#### **Organization Committee:**

1. Enikeeva V.A. (MSU, Moscow)
2. Knyazev B.A (NSU, Novosibirsk)
3. Kozlov S.A. (IFMO, Saint-Petersburg )
4. Kuzin M.V. (BINP SB RAS, Novosibirsk)
5. Mezentseva L.A. (BINP SB RAS, Novosibirsk)
6. Prokopenko A.A. (BINP SB RAS, Novosibirsk)
7. Sokolova I.G. (BINP SB RAS, Novosibirsk)
8. Cherkassky V.S. (NSU, Novosibirsk)
9. Shkurinov A.P. (MSU, Moscow)
10. Shlenov S.A. (MSU, Moscow)
11. Tsurkan A.V. (NSU, Novosibirsk)

#### **Expected invited lecturers (to be supplemented):**

1. Tolbanov O.P. O.II. (SPTI TSU)
2. Kitaeva G.H. (MSU, Moscow)
3. Knyazev B.A (NSU, Novosibirsk)
4. Kozlov S.A. (IFMO, Saint-Petersburg )
5. Garnov S.V. (GPI RAS, Moscow)
6. Bratman V.L (IAP, Nizhny Novgorod)
7. Peter Weightman (Daresbury, UK)
8. Tilo Baumbach\* (Karlsruhe, Germany)
9. Jeong Young Uk (KAERI, South Korea)
10. Xi-Cheng Zhang (USA)

\*is not confirmed yet.

#### **Accommodation of the participants of the Symposium and School-Workshop**

The participants are supposed to be accommodated at the hotel “Golden valley. A few participants, only students and graduates, may be housed in the Novosibirsk State University dormitory.