

*SECOND ANNOUNCEMENT*

**International Conference**

**8<sup>th</sup> Minsk International Seminar**

**Heat Pipes, Heat Pumps,  
Refrigerators, Power Sources**



**September 12–15, 2011**

**Minsk, Belarus**

<http://www.minskheatpipes.org>

## *Dear Colleagues, Dear Friends,*

We are pleased to announce the 8<sup>th</sup> event of the Minsk International Seminar *Heat Pipes, Heat Pumps, Refrigerators, Power Sources* (MIS HEAT PIPES) conference series. MIS HEAT PIPES conferences were successfully realized since 1993. The number of investigations of heat transfer problems multiplies several times year by year. Traditionally heat pipes remain an effective heat transfer devices capable of being used in widest range of applications, from mobile to space systems. New ideas and constructions greatly need to be considered and approved. Contemporary energetic demands force heat pumps and refrigerators to apply high-end technologies. New power sources require more and more attention considering the problem of environment protection. The Conference allows for meeting and making an advisement in the field of interest for specialists from scientific centers all over the world. The Conference will provide keynote lectures, oral and poster sessions, leaving time for in-depth discussions in an informal atmosphere.

### **Important Dates and Deadlines**

<b>Abstract submission</b>	<b>February 15, 2011</b>
<b>Notification of abstract acceptance</b>	<b>March 15, 2011</b>
<b>Draft paper submission</b>	<b>April 20, 2011</b>
<b>Delivery of review papers</b>	<b>May 20, 2011</b>
<b>Final paper submission</b>	<b>July 1, 2011</b>
<b>Conference event</b>	<b>September 12–15, 2011</b>

### **Aims and Scope**

The main objective of the Conference is to provide a greater understanding of the fundamentals, principles and technologies associated with the design and operation of heat pipes, heat pumps, refrigerators, and power sources. The Conference is also a means of disseminating information concerned with recent research and development activities in the abovementioned field and related areas such as air conditioning, cryogenics, electronic cooling, etc. It provides a forum for persons involved in research, development, design, and operation of heat pipes, heat pumps, refrigerators, cooling and heating systems, power sources and also can be interesting for scientists and engineers who works in such areas as heat and mass transfer science, energy management and pollution control. Traditionally a special section is devoted to the problems of a thermal control of space vehicles equipment.

## Organizers

**NATIONAL ACADEMY OF SCIENCES OF BELARUS**  
**LUIKOV HEAT & MASS TRANSFER INSTITUTE**  
**NIS SCIENTIFIC ASSOCIATION HEAT PIPES**  
**BELARUSIAN NATIONAL TECHNICAL UNIVERSITY**

## Sponsors

**INTERNATIONAL CENTRE FOR HEAT AND MASS TRANSFER,  
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## Main topics

*Physical phenomena in heat pipes, thermosyphons, heat pumps, and refrigerators, solid and liquid sorption heat machines. Fundamental and experimental research*

*Two-phase flows, interface phenomena, processes of sorption, boiling, evaporation and condensation in the heat transfer devices mentioned*

*Heat and mass transfer in capillary systems and porous media*

*Modeling of start-up, steady-state, and transient performances in heat pipes and solid sorption devices*

*Heat pipes for space application (Special session)*

*Mini- and microscale heat transfer in phase changes. Fundamentals, experiments, applications*

*Heat transfer in nano porous structures; nano fluids; nano technologies*

*Heat transfer in fuel cells*

*Scientific, space, industrial and domestic applications of heat pipes, heat pumps, refrigerators, and power sources*

*Materials problem in heat pipes, heat pumps, refrigerators and power sources.*

*State-of-the-art surveys of heat pipe and sorption machines*

## HONOURABLE NATIONAL SCIENTIFIC COMMITTEE

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<b>V. A. Orlovich</b>	Chairman of Council of Directors of the Belarusian Republican Foundation for Fundamental Research
<b>B. M. Khrustalev</b>	Rector of the Belarusian National Technical University

## INTERNATIONAL SCIENTIFIC COMMITTEE

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<b>Prof. <span style="border: 1px solid black; padding: 2px;">Delil Adrianus A. M.</span></b>	<i>The Netherlands</i>	<b>Prof. Saha Bidyut B.</b>	<i>Japan</i>
<b>Prof. Faghri Amir</b>	<i>USA</i>	<b>Dr. Schlitt Reinhard</b>	<i>Germany</i>
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<b>Prof. Kato Yukitaka</b>	<i>Japan</i>	<b>Prof. Wang Ruzhu</b>	<i>China</i>

## KEYNOTE LECTURES

1. **Alyousef Y.** (*Energy Research Institute, Riyadh, Saudi Arabia*)  
Two-phase Thermal Control Systems for Planetary Base and Surface Systems
2. **Aristov Yu. I.** (*Boreskov Institute of Catalysis SB RAS, Novosibirsk, Russia*)  
Optimisation of Adsorption Dynamics in Adsorptive Heat Transformers: Experiment and Modelling
3. **Farouk B.** (*Drexel University Philadelphia, USA*)  
Thermoacoustic Refrigeration for Cryogenic Applications: Recent Advances
4. **Goncharov K.A.** (*TAIS Ltd., Russia*)  
Development and Application of Space Radiators with Loop Heat Pipes
5. **Kakaç S.** (*TOBB University of Economics and Technology, Ankara, Turkey*)  
Heat Transfer Enhancement with Nanofluids
6. **Kato Y.** (*Tokyo Institute of Technology, Japan*)  
Development of Chemical Heat Pump for Recovery of Waste Heat at Middle-Temperatures of 200–400°C
7. **Kryukov A. P.** (*Moscow Power Engineering Institute, Russia*)  
Peculiarities of the Nonequilibrium Heat and Mass Transfer on the Interfaces
8. **Maydanik Yu.F.** (*Institute of Thermal Physics, Yekaterinburg, Russia*)  
Loop Thermosyphons – Development and Application
9. **Prat M.** (*Institut de Mécanique des Fluides de Toulouse, France*)  
Heat and Mass Transfer in Capillary Structures. Application to Loop Heat Pipes
10. **Saha B.B.** (*Kyushu University, Fukuoka, Japan*)  
Next Generation Thermally Powered Adsorption Refrigeration Cycles
11. **Smirnov H.F.** (*Odessa National Academy of Food Technology, Ukraine*)  
Modeling and Experimentation of Pulsating Heat Pipes
12. **Sunden B.** (*Lund Institute of Technology, Sweden*)  
On Multiscale and Multiphysics Transport Phenomena in Fuel Cells
13. **Vasiliev L.L.** (*A.V. Luikov Heat & Mass Transfer Institute, Minsk, Belarus*)  
Heat Transfer Enhancement in Minichannels and Heat Pipes Using Nanotechnology
14. **Yagov V.V.** (*Moscow Power Engineering Institute, Moscow, Russia*)  
The Mechanisms of Intensive Heat Transfer in Different Modes of Boiling
15. **Zhang L.Z.** (*South China University of Technology, Guangzhou, China*)  
Progress on Heat and Moisture Recovery from Ventilation Air: from Fundamentals to Engineering Applications

## FORMAT OF THE CONFERENCE

The format of the Conference will be arranged, with major elements being general papers presented in oral and poster sessions, keynote lectures by invited speakers, equipments and books exhibitions, social and tour activities. Papers will be scheduled for oral presentations on the basis of their content and interest. All papers, presentations, posters, and courses should be prepared in English.

## Format of the Conference

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## Call for Papers and Participation

The purpose of general papers is to report original unpublished findings in the theory and experiment of heat pipes, heat pumps, and refrigeration technologies. All general papers will be reviewed under direction of the International Committee of the Conference. Papers will be assessed for presentation at the conference on the basis of extended abstracts. Abstracts must be submitted in English in MS Word or Adobe PDF format and do not exceed 600 words. CD and hard copy proceedings will contain the general and keynote papers and will be distributed to the participants at the beginning of the Conference.

If you plan to attend the Conference, please complete the attached registration form. Detailed information, including registration and hotel accommodation forms, will be sent together with next announcements.



## Paper Presentation

**Oral Papers** The time allowed for keynote lectures is 30 minutes, for oral presentations of individual papers is 15 minutes, and 5 minutes for the questions and discussion after each presentation. Please give the materials of your presentation 15 minutes prior to the start of your session.

**Presentations** should be prepared in MS PowerPoint, should be informative, visible, may contain photos, video and animation material.

**Posters** should be prepared preferably onto A0 sheets (841×1189 mm) or at least onto A1 or A2 sheets. Posters are to be attached to the poster boards with dimensions 900×1500 mm. The lettering should be large enough to be readable from five feet away. The message should be clear and understandable. The following text sizes are suggested:

Title	2 – 3 cm
Authors' names and affiliations	1½ – 2 cm
Section headings (Abstract, Results etc.)	1½ – 2 cm
Text height	5 – 10 mm

## The Venue

Luikov Heat & Mass Transfer Institute is located in Minsk and is connected with the city center by an extensive transport network. Using underground system and bus transport, you can easily get to the historic, administrative, and cultural center of Minsk and to a wide range of hotels.

Minsk, the capital of the Republic of Belarus, is a modern city having a population of about 2 million inhabitants. It is an important industrial, administrative, and cultural center of Belarus with a more than 940 years-long history.

Minsk meets its guests with splendors of broad avenues and boulevards, spacious squares, green parks, and public gardens. There are a number of theaters, museums, art galleries, and exhibitions.

The Republic of Belarus with the population of about 10 millions is a country of plains, low hills, tranquil rivers, lakes, green woods, and meadows. The climate is mild and moderate. Usually, at the time the Conference will be held, the temperature is comfortable, between 18 and 25 °C.

## Registration Fee

Registration fee covers attendance at all technical sessions and workshops, conference proceedings, coffee breaks, lunch refreshments during conference and welcome reception.

<b>General Participant</b>	<b>600 \$ before August, 1</b>	<b>500 € before August, 1</b>
	<b>650 \$ after August, 1</b>	<b>550 € after August, 1</b>
<b>PhD Student</b>	<b>300 \$</b>	<b>250 €</b>
<b>Accompanying Person*</b>	<b>300 \$</b>	<b>250 €</b>

\* This fee covers all above mentioned excepting conference proceedings.

**Dear Participants, please note that Registration Fee will be raised after August, 1.**

## Payment options:

**NIS Scientific Association “Heat Pipes”  
15 Brovka Str., Minsk 220072, Belarus**

**BANK OF BENEFICIARY:**  
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## Visas

To participate in the conference you need to have an entry visa. Each participant will get an Official Invitation letter which has to be used for visa support application in the Embassy of the Republic of Belarus. To apply for visas the following paperwork should be submitted to the Consular Division of the Belorussian Embassy.

## Travel

Minsk is situated 300 km to the east from the border with Poland, and is easily accessible by several modes of transportation. All trains to Moscow starting from Berlin, Bern, Geneva, Warsaw, Vienna, Cologne, Paris, Prague, Copenhagen, Frankfurt on the Main, Brussels, and Oslo pass through Minsk.

Minsk is connected by international airlines with many cities: Frankfurt on the Main, Vienna, and Warsaw and many others. One can also reach Minsk by train or by plane via Moscow or St.-Petersburg. Regular sleeper trains and regular flights connect Minsk with Moscow and St.-Petersburg. If this way of transportation is chosen, it is strongly recommended that the tickets from Moscow and St.-Petersburg to Minsk be also booked at your travel agencies, since such reservations in Moscow or St.-Petersburg may be difficult (as well as reservation in Moscow or St.-Petersburg hotels in case of travel delays). For details the participants are requested to apply to their travel agencies.

## Organizing Committee

**NIS Scientific Association "Heat Pipes"**  
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**220072 Minsk, Belarus**

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**Olga Filatova**

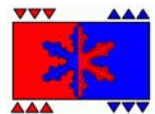
**Tel.:** 375 (17) 284-21-38  
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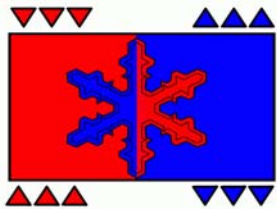
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Minsk, Belarus,  
12-15 September 2011

**International Conference**

**8<sup>th</sup> Minsk International Seminar**

**Heat Pipes,  
Heat Pumps,  
Refrigerators,  
Power Sources**

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**PRELIMINARY REGISTRATION FORM**

Surname \_\_\_\_\_

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City \_\_\_\_\_

Country \_\_\_\_\_

Telephone \_\_\_\_\_

Fax \_\_\_\_\_

E-mail \_\_\_\_\_

**PARTICIPATION**

I intend to take part in the Conference

I will not be able to attend but wish to obtain the Conference proceedings

Accompanying persons \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Date.....

Signature.....