

**Ministry of Education and Science of the Russian Federation
Russian Academy of Sciences
Department of Nanotechnology and Information Technologies of RAS
National Research Center "Kurchatov Institute"
Scientific Council of RAS on Physics of Condensed Matter
Saint Petersburg Scientific Center of RAS
Institute of Solid State Physics of RAS
Saint Petersburg Academic University-
Nanotechnology Research and Education Center RAS**
supported by
**Russian Federation Agency for Education
Russian Fund for Basic Research
Committee for Science and Higher Education of
Saint Petersburg City Government**



International Scientific-Technical Conference

**Nanotechnologies of Functional Materials
(NFM'16)**

21-25 June 2016

Saint Petersburg

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Prof. M.V. Kovalchuk

Program Committee

Chairman

Prof. M.I. Karpov

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Prof. V.N. Varyukhin (Ukraine)	Prof. Yu.V. Milman (Ukraine)

Objectives and topics of the conference

The main objective of the conference is to present and discuss the latest scientific results of basic research and practical achievements in the development of new nanostructured metallic and ceramic materials with high mechanical and performance properties as well as their production technology.

Thematic Sections

1. Physical and chemical characteristics of nanostructural state.
2. Amorphous, nanocrystalline and nanostructural metallic materials.
3. Nanostructured powders, composite, ceramic materials and coatings.
4. Nanobiotechnologies of functional materials.
5. Mechanical properties of nanomaterials; modelling of technological processes.

School for Young Scientists

Nanotechnology in modern production of functional materials and prospects of their development.

Conditions of participation in the conference

International Scientific and Technical Conference “Nanotechnologies and Functional Materials” (NFM’16) is traditionally held on a comfortable ship within 4 days (21-25 June 2016). In addition to participating in the plenary and section sessions, the conference participants will visit the unique recreational (reserved) areas of the North-West region of Russia: Sortavala (Ruskeala village) with excursion to the marble canyon natural Park of Ruskeala, Mandrogi village with excursion to an ensemble of wooden architecture, trade and crafts village where a picnic lunch of Russian cuisine will be organized, Valaam island with the tour of the monasteries of Valaam (Rocky shore, Northern Athos), Pellotsaari island and Kizhi island.

Park of Ruskeala



Ruskeala is a rural locality (a settlement) under the administrative jurisdiction of the town of republic significance of Sortavala in the Republic of Karelia, Russia. Within the framework of municipal divisions, Ruskeala is a part of Kaalamskoye Rural Settlement in Sortavalsky Municipal District.

An international tourist route, Blue Highway (Norway-Sweden-Finland-Russia) goes through Ruskeala.

History

Before the Winter War and Continuation War, it was the seat of Ruskeala Municipality of the Viipuri Province in Finland. Ruskeala became the main village of its own parish, independent of Kitee, in 1721.

Nature

The quarry site has been designed to become Ruskeala Park, a regional park. A series of small cascade waterfalls on the Tokhmayoki River is another popular tourist attraction situated near the settlement.

Mandrogi village



Thirty kilometres from the town of Lodeynoye Polye, between the Ladoga and Onega lakes, on the left bank of the Svir river, in the place of the village Verkhnie Mandrogi, which was razed to the ground during the Second World War, stands a reproduction of a traditional Russian settlement. The village is a unique centre for recreation and tourism. Mandrogi was designed to accommodate corporate guests and visiting families; here, every effort is made to create a warm, homely atmosphere and welcome each guest with personal attention.

The reconstruction of the village began in 1996, on the initiative of the businessman S. E. Gutzeit, who also sponsored the effort. Back then, the area was no more than an overgrown willow meadow on the banks of the river. In 1999, the Russian Federation government passed a decree to place the village of Verkhnie Mandrogi on the official Map of Russia.

At Mandrogi (which means ‘thresholds’ in the local language, Vepsian) a number of buildings have been constructed, including a series of traditional mansions decorated with intricate carving, two hotels, a post-office and artisans workshop imitating palatial Boyar terems, the homestead of a landowner and a large restaurant, called the ‘Gostiny Dvor’.

Adult visitors are sure to be interested by the Vodka Museum. The museum’s collection includes more than two and a half thousand different labels of vodka: this is the number produced in the homeland of this infamous drink. However, the museum staff do not encourage drunkenness—quite the opposite: they explain the benefits of consumption in moderation, and promote a sophisticated drinking culture.

Valaam island



Valaam, also known historically by the Finnish name Valamo, is an archipelago in the northern portion of Lake Ladoga, lying within the Republic of Karelia, Russian Federation. The total area of its more than 50 islands is 36 km². The largest island is also called Valaam. It is best known as the site of the 14th century Valaam Monastery on Valaam Island and for its natural beauty. In the 12th century, the islands were a part of the Novgorod Republic. In the 17th century, they were captured by Sweden during the Time of Troubles, but Russia reconquered them less than a century later. When the Grand Duchy of Finland was set up in the early 19th century as an autonomous part of the Russian Empire, Alexander I of Russia made Valaam a part of Finland. In 1917, Valaam became a part of newly independent Finland, but it was acquired by the USSR after the Winter War and Continuation War. The name of the island is from the Finno-Ugric word *valamo*, which means the high, mountain, ground.

The island was visited repeatedly by emperors Alexander I, Alexander II, and other members of the imperial family. Other famous visitors include Tchaikovsky and Mendeleev.

During the summer, the main island can be reached by tour boats which leave St. Petersburg at night and arrive at the island the following morning.

The president of the Russian Federation has a dacha on one of the islands of Valaam, but its precise location is not publicly known.

Note: Tour program is drawn up as preliminary. There may be some changes.

Registration fee includes coffee-breaks, lunch on the first day of the conference, accommodation in comfortable double cabins and meals on board ship, a

conference bag, proceedings of the conference on the USB flash drive, transfer from the university to the ship and back, excursion services.

Important dates

01.05.2016 – deadline for abstract submission (1-2 pages of A4 paper in Word)

01.06.2016 – deadline for abstracts review by members of the Program and Organizing Committee

05.06.2016 – submission of summary report (paper)

Proceedings of the Conference will be presented on the USB flash drive.

Printed copy of the Proceedings will be available upon prior request from the Organizing Committee for €15.

Rules for summary report (paper)

File of up to 6 pages of A4 format must be submitted in MS Word format to the Organizing Committee to **nfm16@spbstu.ru**.

Requirements:

- ✓ bottom margin - 2.5 cm;
- ✓ left margin - 3 cm;
- ✓ right margin - 1.5 cm;
- ✓ font “Times New Roman”, size 14;
- ✓ indent (paragraph) - 1.25 cm;
- ✓ line spacing – 1,5;
- ✓ Drawings, graphs, charts – at least 300 dpi.
- ✓ The formulas should be typed in formula editor Microsoft Equation.

Rules for abstracts

The abstract should include the characteristics of the main theme, problems of a scientific paper, purpose of the work and its results. The abstract indicates what new has this paper in compare with other related topics and purposes.

Recommended average volume of abstract is 500 characters.

Requirements:

- ✓ bottom margin - 2.5 cm;
- ✓ left margin - 3 cm;
- ✓ right margin - 1.5 cm;
- ✓ font Times New Roman, size 12;
- ✓ indent (paragraph) - 1.25 cm;
- ✓ line spacing – 1.5.

Structure of submitted materials

- ✓ Initials and surname of author (authors);
- ✓ Title of the report;

- ✓ Information about the author (s): name, patronymic, surname, academic degree, place of work, country, city, e-mail or telephone for contact;
- ✓ Abstract and key words;
- ✓ Summary report;
- ✓ The list of references.

Name of the text file with paper and registration form (marked **Reg**) must contain the name and initials of the first author. If several papers, the name of the text file must have number of the paper.

For example: **ivanov_ak_1.doc** and **ivanov_ak-reg.doc**.

The papers selected by Program Committee will be published in journals:

- «Metallurgy and Heat Treatment of Metals» (Scopus)
- «Physics and Mechanics of Materials» (Scopus)

The authors of selected papers will be informed about the conditions of the papers submission in relevant journals.

Registration fee

before 10.06.2016 - €600

after 10.06.2016 - €650

onsite registration - €650

PhD Students, Students - €300

Accompanying person:

before 10.06.2016 - € 450

after 10.06.2016 - €500

onsite registration - €500

Payment methods

Intermediary bank:

SWIFT:

Beneficiary, s bank: Bank «Saint-Petersburg» PJSC

64A Malohtinsky Prospect, St. Petersburg 195112,
Russian Federation

SWIFT: JSBSRU2P

Beneficiary: account 40503978490550200001

Peter the Great St. Petersburg Polytechnic University (SPbPU),
29, Polytechnicheskaja str, St Petersburg,
Russian Federation

Please, write your name and the conference name (NFM'16)

Example: John Brown, NFM'16

You can pay by bank transfer or by cash at registration.
Participants wishing to pay by a bank must cover transaction charges.
In case of payment by bank transfer please write the bank details of your organization with full legal name and address.

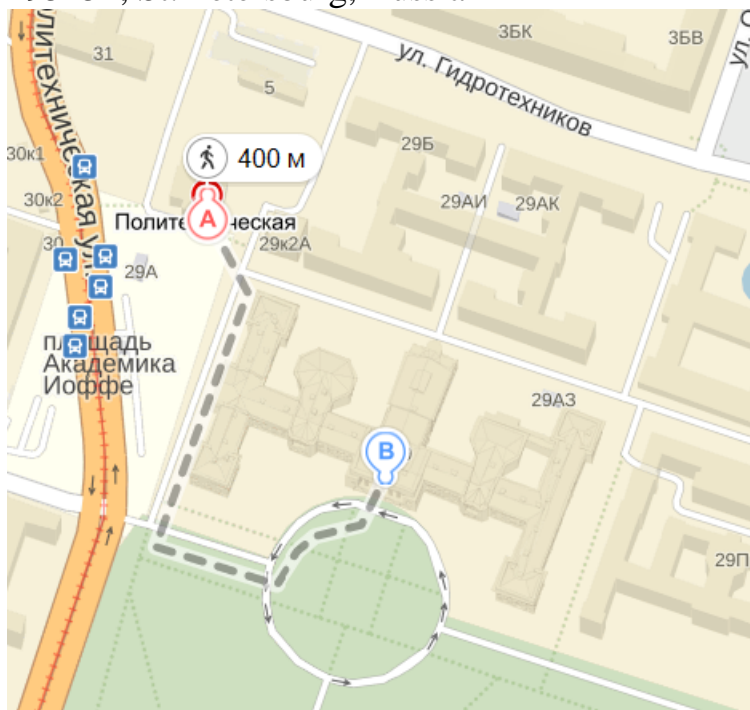
Please note that the hotel reservation is carried out through the NFM'16 Organizing Committee. In this case you get a discount at paying accommodation.

The conference venue

The conference will be held in Peter the Great St. Petersburg Polytechnic University at the address: Polytekhnicheskaya str., 29, Main academic building, White hall (metro station “Polytekhnicheskaya”) – 1st day; next - on board ship.

Contact Information

Organizing Committee of the Peter the Great St. Petersburg Polytechnic University,
Polytekhnicheskaya str., 29
195251, St. Petersburg, Russia



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Tel/fax: +7(812) 552 85 34

E-mail: nfm16@spbstu.ru

Conference website: <http://www.nfm.ru>

Registration on site will begin on March 1, 2016. Till March 1, you can send the registration form, report and abstract to the mail nfm16@spbstu.ru

**Nanotechnologies of Functional Materials
(NFM'16)
Registration Form**

Title: Mr Mrs Ms Prof Dr
Last Name _____
First Name _____
Other Names _____
Dates of birth _____
Place of birth _____
Citizenship _____
Passport number _____
Date of issue _____
Date of expiry _____
Country of permanent residence _____
Place of visa issuing _____
Place of work:
Organization _____
Address _____
Position _____
E-mail _____
Fax _____
Phone _____
Accompanying person, if any _____

Date of arrival _____
Date of departure _____

Please note!

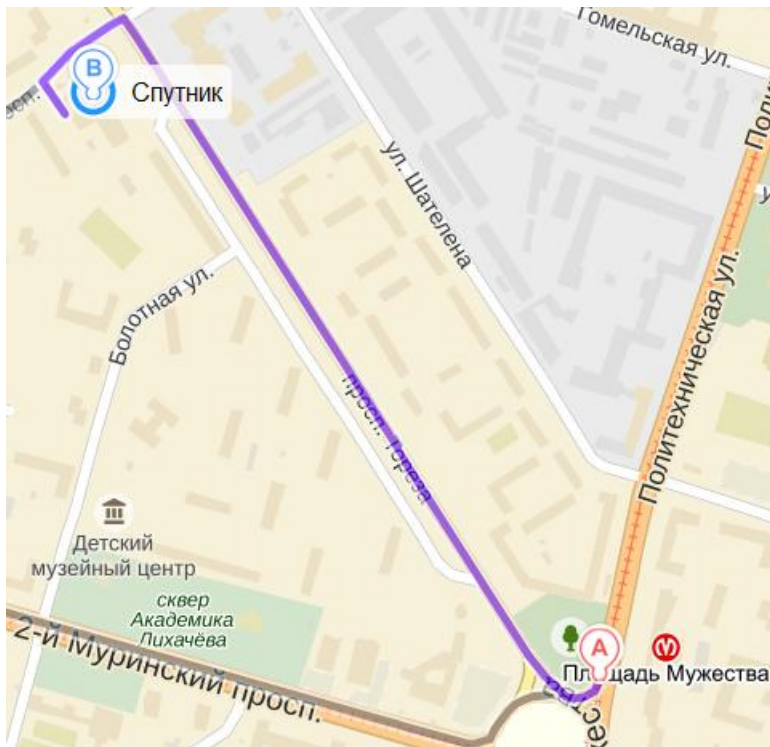
Copy of the first page of your passport sent by fax or by e-mail is required for issuing an official invitation (visa support). Visa support letter (official invitation) will be sent to you within **2 months** (for EU members within 2 weeks).

Accommodation needed: Yes No

Booking the hotel:

- Hotel "Sputnik"
 - single room
 - double room

Address: Hotel “Sputnik”- Prosp. M.Toreza 36; metro station “Ploshchad’ Muzhestva”

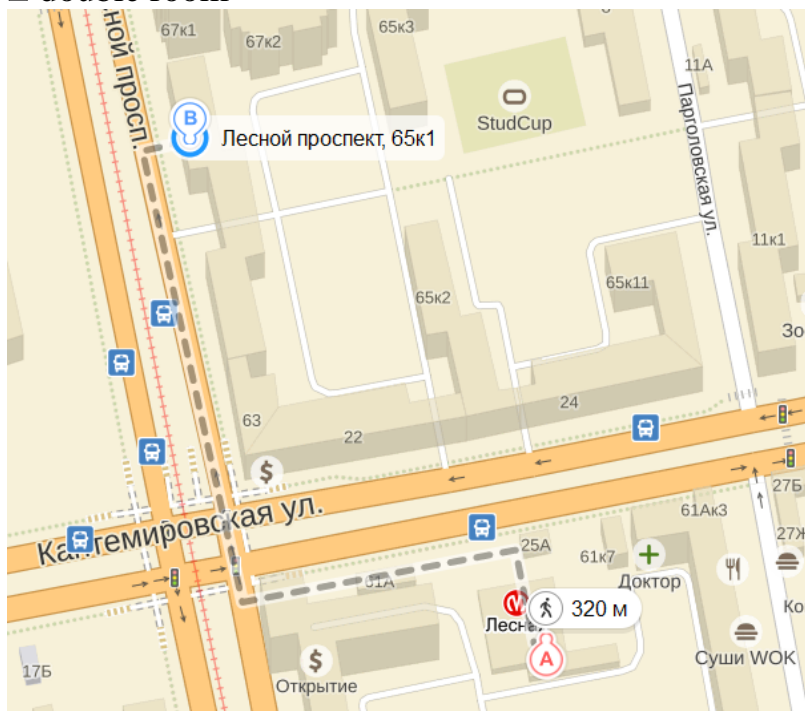


2. University Hotels**:

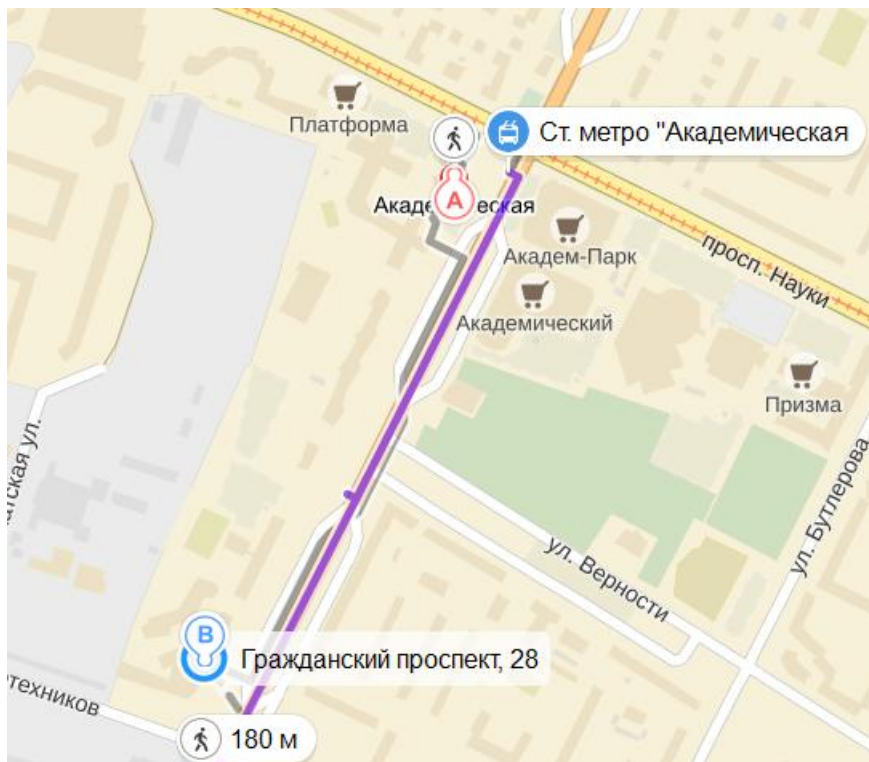
Lesnoy prospekt 65, Metro station “Lesnaya”

single room

double room



- Grazhdanskiy prospekt 28, Metro station Akademicheskaya.
 - single room
 - double room



Date and Place _____

Signature _____

Note: the passport number must be provided for boarding the ship

ATTENTION!

* Participants who buy tickets for one or more days before the conference and/or for some days after are kindly asked to indicate in the registration form the need for hotel reservation for this period.