

# International Symposium "Mathematics of XXI Centure & Natural Science"

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III International Seminar  
"Nonlinear Phenomenology Advances"

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II International Seminar  
"Systemic-Operational Modifications  
of Mathematical Theories"

&

II International Wokshop  
"Scientific & Educational Problems  
of Belarusian Nuclear Power Plant Project"

September 29 – October 3, 2015

Registration & Submission Abstracts Deadline: August 10, 2015

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Peter the Great St. Petersburg Polytechnic University,  
*195251 Politechnicheskaya Str. 29, Saint-Petersburg, Russia*

## Organizers

- † Peter the Great St. Petersburg Polytechnic University (St. Petersburg, Russia)
- † Ioffe Institute (St. Petersburg, Russia)
- † Konstantinov Nuclear Physics Institute of NRC "Kurchatov Institute" (Gatchina, Russia)
- † Belarusian State University (Minsk, Belarus)
- † Joint Institute of Power and Nuclear Research- SOSNY NASB (Minsk, Belarus)
- † St. Petersburg Institute for Informatics and Automation RAS (St. Petersburg, Russia)
- † Komarov Botanical Institute RAS (St. Petersburg, Russia)
- † Institute of Mathematics NASB (Minsk, Belarus)
- † University of Belgrade (Belgrade, Serbia)
- † P.O. Sukhoi State Technical University of Gomel (Gomel, Belarus)

## Objective

There will be supposed to discuss recent advances and achievements in nonlinear science and data processing techniques. There will be paid special attention nonlinear tools and techniques. As well as there will be observed modern approaches and tools for data processing and for studying nonlinear problems in different fields of science (mathematics, physics, chemistry, biology, economics & others).

## Scope

### III NPA

- Nonlinear dynamical systems
- Spatio-temporal structures patterning in complex media, fractals
- Nonlinear statistics
- Wavelet analysis
- Self-organization and cooperative phenomena
- Classical and quantum chaos, controlling chaos, turbulence
- Wave turbulence and complexity
- Mesoscopic and low-dimensional systems
- Nonlinear dynamics in chemistry, biology, economics and social sciences
- Soils nonlinear dynamics and evolution
- Neural network modeling of nonlinear systems and phenomena
- Nonlinear phenomena in nuclear and reactor physics

### II SOMMT

- Systemology
- Systemic-Operational Dynamics of Natural Investigations
- Data analysis
- Measurement systems
- Fast algorithms
- Number theory & cryptography
- Parallel & Quantum computing

‡ Program will consist of reviewed reports and original talks for which contributions are invited.

## Organizing Committee Co-Chairmen

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V. I. Kuvshinov (JIPNR NASB, Minsk, Belarus)

D. W. Serow (SPbPU, St. Petersburg, Russia)  
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## Contacts

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## Registration Fee

The registration fee is **160 Euro for** a participant and **80 Euro for** an accompanying person. **It** covers:

- car transportation from airport to St. Petersburg and back
- **coffee breaks**
- **cultural** program
- banquet
- publication fee (**a copy of the Symposium Abstracts will be enclosed**)

The Registration Fee does not cover **accommodation** and meal. The fee will be accepted in cash only during the registration of the participants upon arrival.

## Accommodation

All participants will be accommodated in Peter the Great St. Petersburg Polytechnic University hotels, or in the hotel of the Institute of International Educational Programs. Single and double rooms will be available. **Please do not hesitate to** contact the Organizing Committee for details.

## Submission of Papers

Abstract should be written in English and should not exceed 300 words. It should include the author's names, affiliation, contact address and text. The name of the participant should be underlined. Abstracts should be sent to the e-mail address [dimusum@yandex.ru](mailto:dimusum@yandex.ru) as attachment of  $\text{\LaTeX}$  files.

The seminar will feature 40-minute and 20-minute contributed talks, as well as a poster session. The length of the lecture notes up to 20 pages will be kindly accepted. Manuscript (1 copy) should be presented together with the file. Lecture notes and original contributions presented at the Seminar will be reviewed and published. The manuscripts of lectures and original reports should be written in  $\text{\LaTeX}$ , two-column revtex4 style.

## Proceedings

Proceedings of the Seminar will be published as a separate book.

Selected papers will be proposed to be extended for publication in the international journal "Nonlinear Phenomena in Complex Systems".

CONFERENCE LANGUAGE IS ENGLISH

## Cultural Program

† bus tour in Estate Museum "Old Ladoga"

**Information about the cultural PROGRAM other elements will be given later.**

Contacts:

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## Visas

Participants from the most countries must have Russian visas to enter Russia. To obtain Russian visa in time the official invitation should be presented to the Russian Consulate (the addresses and phone/fax numbers are enclosed) at least two weeks before your departure. **Please contact the Organizing committee for the official invitation.**

ATTENTION! If you cannot receive Russian visa in your country, the Organizing committee will arrange visa issuance at the airport PULKOVO upon arrival (**except Saturday and Sunday!**). In this case the visa fee will be EU 80 ÷ 150.

## Transportation

**You can arrive to St. Petersburg by plane or by train.** The organizing committee will provide transfer from airport **to your hotel**. Participants who wish to be picked up at St.-Petersburg Airport are kindly asked to inform the Organizing Committee by e-mail or fax about the exact flight number, date and time of arrival. **Please do it at least a week before the seminar starts.**