

**International Workshop**  
**Nonlinear Fields in Gravitation and Cosmology**  
**and**  
**Russian School-Seminar**  
**Mathematical and Computer Modeling of Fundamental**  
**Objects and Phenomena**

*Kazan, Russia,*  
*Kazan Federal University*  
*October 21-26, 2013*

*1st ANNOUNCEMENT*

**Dear colleague,**

The international workshop “*Nonlinear fields in gravitation and cosmology*” and the Russian school-seminar “*Mathematical and computer modeling of fundamental objects and phenomena*” will be held from October 21 to October 26, 2013 in Kazan on the basis of Kazan Federal University (KFU). The meeting is keeping on traditions founded by series of conferences *GRACOS* (2007, 2009, 2012) and the school-seminar dedicated to mathematical and computer modeling in 2010.

A scientific program of the conference includes plenary and work sessions and informal round-table discussions. Students and young scientists are invited to participate in school’s work; a school program consists of review and educational lectures which will be given by leading scientists. An expected number of participants is about 150 persons. An accommodation will be in the University dormitories.

**The conference’s languages:** *Russian and English*

**The international workshop**  
**“Nonlinear fields in gravitation and cosmology”**

**Organizing Committee:**

- Prof. V.N. Melnikov (Chairman), Center for Gravitation and Fundamental Metrology, VNIIMS and Institute of Gravitation and Cosmology, Peoples’ Friendship University of Russia, Moscow, Russia
- Academician A.A. Starobinsky (Vice-chairmen), Institute of Theoretical Physics RAS, Moscow, Russia
- Prof. Yu.G. Ignatyev (Vice-chairmen), Kazan Federal University, Kazan, Russia
- Prof. S.V. Sushkov (Scientific secretary), Kazan Federal University, Kazan, Russia

**International Advisory Committee:**

V.G. Bagrov (Tomsk), A.B. Balakin (Kazan), A.M. Baranov (Krasnoyarsk), K.A. Bronnikov (Moscow), Yu.S. Vladimirov (Moscow), V.D. Gladush (Dnepropetrovsk, Ukraine), A.K. Gorbatshevich (Minsk, Belarus), V.M. Zhuravlev (Ulyanovsk), A.P. Efremov (Moscow), A.I. Zhuk (Odessa, Ukraine), A. Minkevich (Minsk, Belarus), D. Singleton (Fresno, California, USA), S.V. Chervon (Ulyanovsk)

### **Local Organizing Committee:**

- Prof. Yu.G. Ignatyev (Chairmen) ([ignatev\\_yu@rambler.ru](mailto:ignatev_yu@rambler.ru))
- Prof. S.V. Sushkov (Scientific secretary) ([sergey\\_sushkov@mail.ru](mailto:sergey_sushkov@mail.ru))
- Dr A.A. Popov, A.R. Samigullina

### **Sessions:**

- Classical nonlinear and gauge fields in the theory of gravity  
(conveners: Yu.S. Vladimirov, A.V. Minkevich)
- Cosmological models  
(conveners: A.A. Starobinsky, Yu.G. Ignatyev)
- Quantum fields  
(conveners: D.V. Galtsov, A.B. Balakin)
- Black holes and wormholes  
(conveners: K.A. Bronnikov, S.V. Sushkov)

## **The Russian school-seminar “Mathematical and computer modeling of fundamental objects and phenomena”**

### **Organizing Committee:**

- Prof. Yu.G. Ignatyev (Chairmen), Kazan Federal University, Kazan
- Prof. V.P. Dyakonov (Vice-chairman), Smolensk State University, Smolensk
- Prof. D.P. Goloskokov (Vice-chairman), SPbUWC, St-Petersburg
- Prof. N.N. Ziatdinov, KNITU, Kazan
- Prof. M.M. Karchevskii, KFU, Kazan
- Prof. A.P. Kirpichnikov, KNITU, Kazan
- Prof. M.N. Kirsanov, MEI, Moscow
- Prof. R.G. Mukharlyamov, Peoples’ Friendship University of Russia, Moscow
- Prof. N.B. Pleschinskii, KFU, Kazan
- Prof. S.V. Sushkov (Scientific secretary), Kazan Federal University, Kazan, Russia

### **Local Organizing Committee:**

- Prof. Yu.G. Ignatyev (Chairmen) ([ignatev\\_yu@rambler.ru](mailto:ignatev_yu@rambler.ru))
- Prof. S.V. Sushkov (Vice-chairman)
- Dr A.A. Popov (Scientific secretary) ([arkady\\_popov@mail.ru](mailto:arkady_popov@mail.ru))
- A.R. Samigullina (Technical secretary) ([alsu\\_sam@rambler.ru](mailto:alsu_sam@rambler.ru))

### **Lectures:**

- Mathematical models of fundamental objects and phenomena  
(conveners: Yu.S. Vladimirov, N.B. Pleschinskii)
- Mathematical physics in systems of computer mathematics  
(conveners: D.P. Goloskokov, Yu.G. Ignatyev)
- **Systems of computer mathematics**  
(conveners: V.P. Dyakonov, N.M. Kirsanov)
- Mechanics and field theory in systems of computer mathematics  
(conveners: Yu.G. Ignatyev, N.M. Kirsanov)

### **Sessions:**

- Computer modeling of fundamental objects and phenomena in systems of computer mathematics  
(conveners: Yu.V. Vladimirov, N.B. Pleschinskii, M.D. Missarov)
- Computer modeling in field theory in systems of computer mathematics  
(conveners: D.P. Goloskokov, Yu.G. Ignatyev)
- **Programming in systems of computer mathematics**  
(conveners: V.P. Dyakonov, N.M. Kirsanov)

- Computer modeling in mechanics in systems of computer mathematics  
(conveners: Yu.G. Ignatyev, N.M. Kirsanov, S.V. Sushkov)

### **Visa**

Colleagues from countries outside Russia should note that a visa is required for entry into the country, and it is essential to leave time for applying for this document which may take two or three weeks to obtain, sometimes longer. It is therefore in the interests of all non-Russian participants to prepare for participation in the Conference by the earliest date possible. An original letter of invitation to the Conference is needed when applying for a visa. Registered participants can obtain such a letter from the Conference secretariat. As the process for obtaining a visa takes time, requests for letters of invitation should reach the Conference secretariat not later than June 30, 2013.

### **Conference fee**

Conference fee is 100 USD and includes coffee breaks, a social program, conference banquet and proceedings.

### **Conference materials**

Abstracts (up to one page of text) prepared in LaTeX2e and offered for inclusion into the Conference program should be sent to the Local Organizing Committee before June 30, 2013.

### **Registration**

Persons wishing to take part in the Conference have to fill the registration form and send it to the scientific secretary Prof. S.V. Sushkov ([sergey\\_sushkov@mail.ru](mailto:sergey_sushkov@mail.ru)).

### **Contacts**

For any questions concerning the conference, please do not hesitate to contact the Local Organizing Committee by e-mail to the LOC Chairman, Prof. Yuri Ignatyev ([ignatev\\_yu@rambler.ru](mailto:ignatev_yu@rambler.ru)), and to the scientific secretary Prof. Sergey Sushkov ([sergey\\_sushkov@mail.ru](mailto:sergey_sushkov@mail.ru)).

**Registration form**  
The international workshop  
*Nonlinear fields in gravitation and cosmology*  
and the Russian school-seminar  
*Mathematical and computer modeling of fundamental objects and phenomena*  
KFU, Kazan, Russia  
October 21-26, 2013

Family name (Prof/Dr/Mr/Ms):

First name:

Position:

University:

Address for conference communication:

Postcode:

Phone:

E-mail:

Title of report and session (1):

Title of report and session (2):

Scientific supervisor (for students):