



**KAZAN (VOLGA REGION) FEDERAL UNIVERSITY**

**Russian Gravitational Society**

**INTERNATIONAL WINTER SCHOOL  
ON GRAVITY, COSMOLOGY, AND ASTROPHYSICS**

**«PETROV SCHOOL»**

**Kazan, 17 – 22 February 2014**

**1st INFORMATION LETTER**

***Dear Colleague!***

We are happy to inform you that the International Winter School on gravity, cosmology, and astrophysics «Petrov School» will take place from February, 17 to 22, 2014 in the Institute of Physics of Kazan (Volga region) Federal University. This will be a renewal of the traditional International Summer Petrov School, which was being held at the Kazan University annually starting from 1987.

The objective of the Winter Petrov School is to preserve and develop the high potential of the Russian scientific school in theory of gravity, astrophysics, cosmology and related areas of physics and mathematics.

Programme of the School will include lectures by the leading Russian and international scientists. Young scientists participating in the school will be able to present their research during the seminar sessions.

**Working languages:** Russian, English

**School website:** [http://kpfu.ru/main\\_page?p\\_sub=26536](http://kpfu.ru/main_page?p_sub=26536)

**Registration:** applications are accepted on the school website until the 1st of February 2014.

**Registration fee** for all participants of the Petrov School is 500 Russian roubles.

**Accommodation:** all participants will be provided with accommodation in the University guesthouse free of charge.

**LECTURE PROGRAMME**

- **A.A. Starobinsky**, Inflationary models in Einstein and modified gravity theories, providing the most adequate descriptions of modern observational data (8 hours)
- **V.N. Melnikov**, Integrable multidimensional cosmological models and fundamental physical constants (2 hours)
- **S.D. Odintsov**, Modified theories of gravity in cosmology (2 hours)  
String and nonlocal theories of gravity (2 hours)
- **Shin'ichi Nojiri**, Accelerating cosmology in modified gravity (4 hours)
- **S.V. Sushkov**, Cosmological models with nonminimal kinetic coupling (2 hours)
- **S.V. Chervon**, Chiral cosmological model: early and late inflation (4 hours)
- **A.B. Balakin**, Nonminimal field theory (4 hours)
- **I.F. Bikmaev**, Type Ia supernovae as standard candles on cosmological distances in the Universe (4 hours)

- **S.V. Krasnikov**, Time machines in GR (2 hours); Superluminal motion in GR (2 hours).

## INTERNATIONAL PROGRAMME COMMITTEE

A.A. Starobinsky, academician of RAS, *chairman*

(Landau ITP, Moscow)

Prof. V.N. Melnikov, *co-chairman*

(president of the Russian Gravitational Society, VNIIMS and PFUR, Москва)

Prof. S.V. Sushkov, *co-chairman*

(head of the department of General Relativity and Gravity, KFU, Kazan)

M. Abishev (KNU, Almaty, Kazakhstan), A.V. Aminova (KFU, Kazan), V.B. Bagrov (TSU, Tomsk), A.B. Balakin (KFU, Kazan), A.M. Baranov (KSPU, Krasnoyarsk), V.A. Berezin (INR RAS, Moscow), I.F. Bikmaev (KFU, Kazan), G.S. Bisnovaty-Kogan (SRI RAS and MEPhI, Moscow), D.R. Brill (University of Maryland, USA), K.A. Bronnikov (CGFM, Moscow), I.L. Buchbinder (TSPU, Tomsk), S.V. Chervon (USPU, Ulyanovsk), J.C. Fabris (Universidade Federal do Espírito Santo, Vitoria, Brazil), V.P. Frolov (Edmonton University, Canada), D.V. Gal'tsov (MSU, Moscow), A.A. Grib (Friedmann Lab., St.-Petersburg), Yu.G. Ignatiev (KFU, Kazan), R. Kerner (University of Paris, France), Sung-Won Kim (University of Maryland, USA), P. Kuusk (University of Tartu, Estonia), J. Lewandowski (Warsaw University, Poland), V.N. Lukash (Astro Space Centre, Lebedev PI, Москва), A.V. Minkevich (Minsk University, Belarus), A.Yu. Morozov (ITEP, Moscow), V.M. Mostepanenko (Friedmann Lab., St.-Petersburg), Wei-Tou Ni (NTHU, Taiwan), Shin'ichi Nojiri (Nagoya University, Japan), S.D. Odintsov (ICREA, Barcelona, Spain), V.F. Panov (Perm University, Perm), V.A. Rubakov (INR RAS, Moscow), N.A. Sakhbullin (KFU, Kazan), M.V. Sazhin (Sternberg Astron. Inst., Moscow), D. Singleton (California State University, Fresno, USA), Yu.S. Vladimirov (MSU, Moscow), A.P. Yefremov (PFUR, Moscow), A.V. Yurov (BFU, Kaliningrad), O.B. Zaslavsky (Kharkov Nat. University, Ukraine), A.I. Zhuk (Odessa Nat. University, Ukraine)

## LOCAL ORGANIZING COMMITTEE

*Chairman:* Prof. S.V. Sushkov ([sergey\\_sushkov@mail.ru](mailto:sergey_sushkov@mail.ru), [sergey.sushkov@kpfu.ru](mailto:sergey.sushkov@kpfu.ru))

*Scientific secretary:* Dr. A.Ye. Zayats ([Alexei.Zayats@kpfu.ru](mailto:Alexei.Zayats@kpfu.ru))

*Members of the committee:* Prof. A.V. Aminova, Prof. A.B. Balakin, Prof. I.F. Bikmaev, Dr. V.A. Popov, Dr. A.Yu. Kuznetsova, Dr. A.Yu. Danshin, Dr. A.A. Popov, Dr. G.A. Seryakin, Dr. T.Yu. Alpin, R.N. Kashapov, N.N. Dolbilova, R.A. Abzalov

### Visa

Foreign participants must have a valid passport and may need a visa for entry into the Russian Federation. An official invitation letter which is needed when applying for the visa will be prepared by the organizing committee for registered participants. To prepare an invitation we need the following information:

- copy of valid passport (as a pdf- or jpg-file)
- official address of your place of work and your position
- phone number
- name of a city where a Russian Embassy or Consulate is located and where you will apply and then obtain a visa
- dates of visit

As the process for obtaining a visa takes time, please request the invitation letter as soon as possible!