### **Courses taught**

- \* Classical and quantum field theory
- \* Quantization of gauge fields
- \* Supersymmetric field theory
- \* Group theory
- \* General relativity
- \* String theory

Stuff members have experience to give the lectures in English and work with International students. The thesis topics are devoted to current problems in modern theoretical physics.

### **Research leaders**



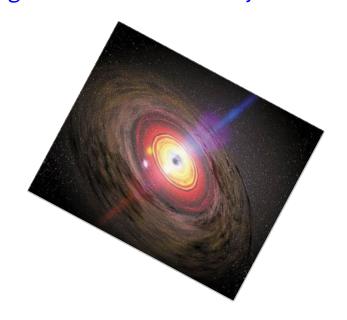
Professor

I.L. Buchbinder

Their publication lists can be found on site http://inspirehep.net

### Welcome!

Center of Theoretical Physics at Tomsk State Pedagogical University invites the applications from able and motivated students for Master and PhD programs in Theoretical Physics.



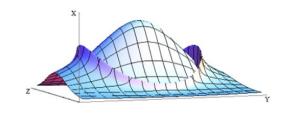
Address:
Tomsk, pr. Komsomolsky, 75,
634061 Russian Federation

Telephone: +7 (382 2) 52-17-51





# Joint Educational Programs in Theoretical Physics





## Joint Educational Programs in Theoretical Physics

- 1 2 semester academic mobility at bachelor, master or doctoral levels
- \* Master double degree program

### Experience in teaching foreign students

- Prof. P.M. Lavrov, University of Leipzig – a set of lectures, 2005
- Prof. I.L. Buchbinder, Institute of Physics, Belgrade, Serbia a set of lectures, 2006
- Prof. I.L. Buchbinder, University of North Carolina at Pembroke – one semester course, 2007
- Prof. I.L. Buchbinder, University of Juis de Fora (Brazil), 2008



### **Theoretical Physics in Tomsk State Pedagogical University**

- \* Center of Theoretical Physics conducts long term fundamental research in area of modern high energy theoretical physics.
- \* Research topics:
- quantum field theory
- supersymmetry
- higher spin field theory

nal of High Energy Physics.

- gauge field theory
- classical and quantum gravity
   The results are published in the top-level international journals: Nuclear Physics B,
   Physical Review D, Physics Letters B, Jour-

#### **Partners:**

University of Pennsylvania (USA), University of Maryland (USA), University of Cambridge (UK), Imperial College (London, UK), Hannover University (Germany),

LM Munich University (Germany), Padova University (Italy),

West Australian University, University of Sao Paulo (Brazil), University of Juis de Fora (Brazil), Lebedev Physical Institute (Moscow, Russia),

Joint Institute for Nuclear Research (Dubna, Russia),

Institute of Mathematics (Novosibirsk, Russia).

Activity of the Center of Theoretical Physics is supported by Russian and international grants.

Around 20 years the Center holds at Tomsk State Pedagogical University the International Conference "Quantum Field Theory and Gravity".

### **Published books**

- \*I.L. Buchbinder, S.D. Odintsov, I.L. Shapiro. Effective Action in Quantum Gravity, IOP Publishing, Bristol and Philadelphia, 1992, 413 p.
- \*I.L. Buchbinder, S.M. Kuzenko, Ideas and Methods of Supersymmetry and Supergravity, IOP Publishing, Bristol and Philodelphia,1995, 2d edition 2008, 640 p.
- \*V.G. Bagrov, G.S. Bisnovatyi-Kogan, V.A. Bordovitsyn, A.V. Borisov, O.F. Dorofeev, V.Ya. Epp, V.S. Gushchina, V.C. Zhukovskii. Synchrotron Radiation Theory and its Development, World Scientific, 1999, 450.
- \*Geyer B., Lavrov P.M., Covariant quantizations of gauge theories, TSPU Press, 2009, 153 p.