



# Programme

## 2nd South Africa – JINR Symposium

### *Models and Methods in Few- and Many-Body Systems*



BLTP Conference Hall, 2nd floor  
Wednesday, September 8, 2010

**8:45-9:15 Registration (BLTP)**

**9:15-9:30 Opening: Victor Voronov and Sofianos Antoniou Sofianos**

#### **Few-Body I:**

**chairman:** Sofianos Antoniou Sofianos

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**9:30** Sergei Anatoljevich Rakitianski (UP) 25'

Power-series expansion of the multi-channel Jost matrix

**10:00** Elena Kolganova (BLTP), 25'

Three-body systems within three-dimensional Faddeev equations.

**10:30** Andrej Naumkin (BLTP), 15'

A new method of description of 3-particle Coulombic systems

**10:50-11:20 Coffee break**

#### **Hadron spectrometry:**

**chairman:** Sergo Gerasimov

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**11:20** Sofianos Antoniou Sofianos (UNISA) 25'

Few body methods for Bose-Einstein condensate

**11:50** Nikolaj Kochelov (BLTP) 25'

Exotic hadrons

**12:20** Alexander Dorokhov (BLTP) 25'

Transition form factors of pseudoscalar mesons: theory vs experiment.

**12:50-15:00 Lunch**

#### **Nuclear reactions I:**

**chairman:** Rostislav Jolos

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**15:00** Dmitriy Kamanin (FLNR) 25'

Multi-cluster decays of heavy nuclei.

**15:30** Andrey Denikin (FLNR) 25'

Network based knowledge system on nuclear reactions.

**16:00-16:30 Coffee break**

#### **Nuclear Structure I:**

**chairman:** Rashid Nazmitdinov

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**16:30** Walter Dieter Heiss (SU) 25'

Onset of Chaos in Transitional Regions of Quantum Mechanical Phase Transitions

**17:00** Fedor Simkovic (BLTP) 25'

Nuclear structure and Double Beta Decay

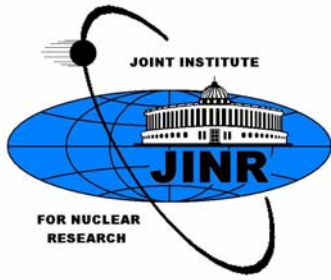
**17:30** Sergei Ershov (BLTP) 25'

Novel method for solution of the coupled Schroedinger equations

**18:00** Elena Rogochaya (BLTP) 15'

Covariant relativistic separable kernel approach for the electrodisintegration of the deuteron at high momentum transfer

**19:00 Welcome party**



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*BLTP Conference Hall, 2nd floor  
Thursday, September 9, 2010*

#### **Few Body II:**

**chairman:** Vladimir Belyaev

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- 9:30** Mantile Leslie Lekala (UNISA) 25'  
Charmonium states
- 10:00** Anastasiya Malykh (BLTP) 25'  
Three two-component particles with zero-range interactions under one-dimensional confinement
- 10:30** Prince Olusegun Gbenga Ogunbade (UP) 15'  
S-matrix parametrization as a way of locating quantum resonances and bound states: multichannel case.

**10:50-11:20** *Coffee break*

#### **Nuclear reactions II:**

**chairman:** Dmitriy Kamanin

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- 11:20** Vrastislav Chudoba (FLNR) 25'  
Study of exotic nuclei
- 11:50** Alexander Andreev (BLTP) 15'  
Description of Light Charged Particle Emission in Ternary Fission
- 12:10** Shuhrat Kalandarov (BLTP) 15'  
Evaporation residues cross sections in heavy ion collisions

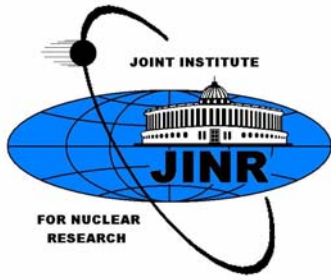
**12:50-15:00** *Lunch*

#### **Nuclear structure II:**

**chairman:** Walter Dieter Heiss

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- 15:00** Shaun Metzler Wyngaardt (SU) 25'  
Self consistent microscopic nuclear cluster models.
- 15:30** Werner August Richter (UWC) 25'  
Properties of Mg-26 and Si-26 in the sd shell model and the determination of the Al-26(p,gamma) Si-26 reaction rate.
- 16:00** Maciej Andrzej Stankiewicz (iTHEMBA) 15'  
Octupole bands in the mass 160 region
- 16:20** Timur M. Shneydman (BLTP) 15'

**16:40-17:00** *Coffee break*  
*Closing*



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## 2nd South Africa – JINR Symposium

### *Models and Methods in Few- and Many-Body Systems*



*Friday, September 10, 2010*

09:00–12:00 Excursion to the JINR laboratories

13:00–14:00 Lunch

14:30 Volga Boat Trip

*Saturday, September 11, 2010*

8:30 Excursion to Moscow