

International Workshop
"Nuclear Theory
in the Supercomputing Era"
www.ntse-2012.khb.ru

# **Program**

Pacific National University, Khabarovsk, Russia. June 18 – 22, 2012

#### Sunday, June 17.

Arrival, hotel registration. Evening: walking in the Khabarovsk downtown area, central park.

#### Monday, June 18.

9:00 – 16:00 Conference Hall

9:30 – 10:00	Registration	
10:00 – 10:45	Workshop opening. A. E. Zubarev, Pacific National University, First Vice-President for Strategic Development and International Cooperation, professor V. V. Chudov, First Deputy Chairman of the Krai Government for the modernization and industrial policy. J. P. Vary, Iowa State University, professor	
10:45 – 11:20	coffee break	
Chair: Andrey M. Shirokov		
11:20 – 12:20	James P. Vary. Ab initio nuclear structure – recent developments.	
12:20 – 13:20	<b>Yutaka Utsuno.</b> Monte Carlo shell model and its applications to exotic nuclei.	
13:30 – 14:30	lunch	
Chair: Jerr	y P. Draayer	
14:30 – 15:30	<b>Takashi Abe.</b> Application of the Monte Carlo shell model to the <i>ab initio</i> no core calculations	
15:30 – 16:00	<b>Vasiliy A. Kulikov</b> . Deuteron-equivalent phase- equivalent transformation and its manifestation in many-body systems.	
16:00 – 16:20	coffee break	
16:20 – 18:00	room 201 Round table discussion, additional questions to speakers	
18:00	Welcome party. Main building, room 215	

#### Tuesday, June 19.

9:00 – 16:00 Conference Hall

Chair: Koi	Chair: Konstantin A. Gridnev		
9:00 <b>–</b> 10:00	<b>Jerry P. Draayer.</b> Symmetry-adapted no-core shell model for light nuclei		
10:00 - 11:00	<b>Tomas Dytrych.</b> Symmetry-Guided <i>Ab Initio</i> Approach to Light and Medium Mass Nuclei		
11:00 – 11:25	coffee break		
Chair: Yutaka Utsuno			
11:25 – 12:25	<b>Leonid D. Blokhintsev.</b> Analytic continuation methods in nuclear reaction theory and indirect approaches in nuclear astrophysics.		
12:25 – 13:25	<b>Viktor S. Vasilevsky.</b> On nature of bound and resonance states in <sup>12</sup> C.		
13:30 – 14:30	lunch		
Chair: Sidney A. Coon			
14:30 – 15:30	<b>Yurii M. Tchuvil'sky.</b> Composite particle interaction		
15:30 – 16:00	<b>Tatjana V. Chuvilskaya.</b> The use of datacontaining codes for the description of nuclear experimental results.		
16:00 – 16:20	coffee break		
16:20 – 18:00	room 201 round table discussion, additional questions to speakers		
18:00	dinner		

## Wednesday, June 20.

9:00 – 11:30 – Conference Hall

9:00 – 10:00	Public lecture. <b>James P. Vary</b> New perspectives on the atomic nucleus
10:20 – 11:20	Public lecture. <b>Jerry P. Draayer.</b> The Holy Grail of Physics: Uncovering Simplicity within Complexity.
11:20 - 11:40	coffee break
11:30- 13:30	room 201 free discussion
13:30 – 14:30	lunch
14:30	Excursions. Khabarovsk museum.
18:00	dinner

# Thursday, June 21.

9:00 – 16:00 – Conference Hall

Chair: Leonid D. Blokhintsev			
9:00 – 10:00	<b>Konstantin A. Gridnev.</b> Extreme neutron rich sector of the nuclear chart: new horizons.		
10:00 - 11:00	<b>Andrey M. Shirokov.</b> Scattering and nuclear structure with oscillator basis.		
11:00 – 11:25	coffee break		
Chair: Tomas Dytrych			
11:25 – 12:25	<b>Sergey L. Yakovlev.</b> Computing Binary Scattering and Breakup in Three Body System.		
12:25 – 13:25	<b>Sergey A. Zaytsev.</b> Square-integrable basises in the many-body Coulomb scattering problem.		
13:30 - 14:30	lunch		
Chair: Yurii M. Tchuvil'sky			
14:30 – 15:00	<b>A. Mazur</b> Development of J-matrix approach for the analysis of resonant states obtained in no core shell model		
15:00 – 15:30	<b>Vladimir A. Goy</b> . Witten parameter and HPC on the lattice.		
15:30 – 16:00	coffee break		
16:20 – 18:00	room 201 Round table discussion, additional questions to speakers		
18:00	Workshop dinner		

## Friday, June 22.

9:00 – 13:30 – Conference Hall

Chair: Sergey L. Yakovlev		
9:00 – 10:00	<b>Sidney A. Coon.</b> Truncation and Extrapolation of <i>Ab initio</i> Calculations in a Finite Model Space.	
10:00 - 11:00	<b>Youngman Kim.</b> Overview on the Rare Isotope Science Project in Korea	
11:00 – 11:20	coffee break	
11:20 – 12:30	room 201 Round table discussion, additional questions to speakers	
12:30 – 13:30	Main building, room 206 Round table discussion of international scientific collaboration prospects. Workshop closing	
13:30 – 14:30	lunch	
14:30 – 19:00	Excursion	