



JOINT INSTITUTE FOR NUCLEAR RESEARCH
Bogoliubov Laboratory of Theoretical Physics
INSTITUTE FOR NUCLEAR RESEARCH AND NUCLEAR ENERGY,
BULGARIAN ACADEMY OF SCIENCES

International Conference on
NUCLEAR STRUCTURE AND RELATED TOPICS (NSRT18)

Burgas, June 3-9, 2018

PROGRAMME

June 4, Monday

8:30 - 9:30	Registration	
9:30 - 9:45	Opening	
9:45 - 10:10	Transition probabilities in mirror nuclei ^{31}S and ^{31}P : A test for isospin symmetry	D. Tonev
10:15 - 10:40	Impact of quasi-fission on SHE production	M. Itkis
10:45 - 11:05	Proton-induced pre-equilibrium composite-particle emission	A. Cowley
11:10 - 11:30	Coffee break	
11:30 - 11:50	Theoretical description of the hot nuclei de-excitation	K. Mazurek
11:55 - 12:20	Nuclear level density and related physics	V. Zelevinsky
12:25 - 12:45	Nuclear masses of neutron-rich nuclei and symmetry energy	N. Wang
12:50 - 16:00	Lunch	
16:00 - 16:25	Realistic shell-model description of beta decay	A. Gargano
16:30 - 16:50	The nuclear matrix elements of $0\nu\beta\beta$ decay and the NUMEN project at INFN-LNS	D. Carbone
16:55 - 17:20	Neutrino mass mechanisms of the $0\nu\beta\beta$ -decay, associated nuclear matrix elements and quenching of g_A	F. Šimkovic
17:25 - 17:45	Coffee break	
17:45 - 18:05	Interplay of quasiparticle vibration coupling and pairing correlations on beta-decay half-lives	Y. Niu
18:10 - 18:25	Nuclear structure of ^{82}Kr and ^{82}Se relevant for neutrinoless double-beta decay	U. Gayer
18:30 - 18:50	Two-phonon structures for beta-decay theory	A. Severyukhin

June 5, Tuesday

9:00 - 9:25	New tests and results of the hybrid configuration mixing (HCM) model for odd nuclei	G. Colò
9:30 - 9:50	Large scale shell model calculations for even xenon isotopes	S. Dimitrova
9:55 - 10:15	Probing nuclear structure with neutron transfer reactions	G. Potel
10:20 - 10:35	A study of the transition between seniority-type and collective excitations in ^{204}Po and ^{206}Po	M. Stoyanova
10:40 - 11:00	Investigation of isovector valence-shell excitations in nuclei around the $N = 82$ shell closure	R. Kern
11:05 - 11:25	Coffee break	
11:25 - 11:45	Gamow-Teller strength in nuclei and its relevance to double-beta decay	N. Auerbach
11:50 - 12:10	Charge-exchange resonances	Y. Lutostansky
12:15 - 12:40	Isoscalar and isovector spin responses in sd -shell nuclei: Whether IS spin operator is quenching?	H. Sagawa
12:45 - 13:05	Beta decay properties and Gamow-Teller distributions in neutron-rich nuclei around $A = 40$	Y. Utsuno
13:10 - 16:00	Lunch	
16:00 - 16:25	Cluster state in ^9Be at high excitation energies	A. Lépine-Szilý
16:30 - 16:55	From cluster structures to nuclear molecules	A. Afanasjev
17:00 - 17:20	Quartetting and isovector-isoscalar proton-neutron pairing in $N > Z$ even-even nuclei	D. Negrea
17:25 - 17:45	Coffee break	
17:45 - 18:05	Pygmy and giant resonances: connecting the nuclear structure to stellar astrophysics	N. Tsoneva
18:10 - 18:30	Fusion in massive stars: Pushing the $^{12}\text{C}+^{12}\text{C}$ cross-section to the limits with the STELLA experiment at IPN Orsay	D. Jenkins
18:35 - 18:55	Skyrme-RPA study of charged-current neutrino interactions in hot and dense supernova matter	A. Dzhioev

June 6, Wednesday

9:00 - 9:20	Hindrance in fission and in alpha decay of heaviest high-K nuclear ground states and isomers	M. Kowal
9:25 - 9:50	Deep excursion beyond the proton drip line along argon and chlorine isotope chains	I. Mukha
9:55 - 10:15	Toward a beyond mean field description of the nucleon pair transfer during the collision of two superfluid nuclei	D. Regnier
10:20 - 10:40	Covariant density functional theory with Fock terms: an atypical nucleus ^{48}Si	Wen Hui Long
10:45 - 11:05	<i>Coffee break</i>	
11:05 - 11:25	Elastic scattering and breakup reactions with light proton- and neutron-rich exotic nuclei	M. Gaidarov
11:30 - 11:50	Charge-mass yields in the fission of highly excited heavy actinides	H. Paşca
11:55 - 12:10	Dinuclear system model for description of binary and ternary fission	A. Andreev
	LUNCH & EXCURSION	

June 7, Thursday

9:00 - 9:25	TBA	Nguyen Van Giai
9:30 - 9:50	The nuclear symmetry energy and the breaking of the isospin symmetry: How do they reconcile with each other?	X. Roca-Maza
9:55 - 10:15	The equation of motion phonon method and its application in the neutron-rich oxygen region	G. De Gregorio
10:20 - 10:40	Effects of the shape and Coriolis interaction in nuclear electromagnetic properties	N. Minkov
10:45 - 11:00	Lifetimes and electromagnetic transition strength in ^{124}Ba	M. Trichkova
11:05 - 11:25	Coffee break	
11:25 - 11:45	Particle-hole dispersive optical model for giant resonances	M. Urin
11:50 - 12:05	Damping parameters of the charge-exchange giant monopole resonances within a semi-microscopic approach	G. Kolomiytsev
12:10 - 12:30	Structure and decay patterns of pygmy dipole resonances	M. Kimura
12:35 - 12:50	Microscopic description of pygmy dipole resonance in neutron-rich Ca isotopes	N. Arsenyev
12:55 - 15:30	Lunch	
15:30 - 15:50	Some new chapters of the long history of SU(3)	J. Cseh
15:55 - 16:15	Proxy-SU(3) and its predictions	R. Burcu Cakirli
16:20 - 16:40	U(6) dynamical and quasi-dynamical symmetry in strongly deformed heavy nuclei	H. Ganev
16:45 - 17:00	Shell-model calculations for upper fp-shell nuclei with an effective interaction	K. Drumev
17:05 - 17:25	Coffee break	
17:25 - 17:45	Toroidal mode in nuclei: From giant resonance to individual states	V. Nesterenko
17:50 - 18:10	Container evolution and dynamics of cluster formation	Y. Funaki
18:15 - 18:30	Dinuclear system model in spontaneous fission process	I. Rogov
18:35 - 18:50	The cluster states in light nuclei	D. Jansetov
19:30	CONFERENCE DINNER	

June 8, Friday

9:00 - 9:20	Mass measurements of short-lived nuclides at HIRFL-CSR	M. Wang
9:25 - 9:45	Experimental status of the nuclear spin scissors mode	I. Molodtsova
9:50 - 10:10	Isospin effect on reaction dynamics at Fermi energies	G. Politi
10:15 - 10:30	Bohr hamiltonian with a potential having spherical and deformed minima at the same depth	P. Buganu
10:35 - 10:55	Coffee break	
10:55 - 11:15	Dynamic chirality in nuclear physics	M. Yavahchova
11:20 - 11:40	Explanation of the puzzle of ^{164}Dy scissors	E. Balbutsev
11:45 - 12:00	Current status and research activity at the INRNE cyclotron laboratory	A. Demerjiev
12:05 - 12:20	ADS for transmutation and energy production	P. Zhivkov

Closing
