

## 2011 KLFTP-BLTP Joint Workshop on Nuclear Physics (Sep. 6-8, 2011, Room 322, Old Building, ITP/Beijing)

*Co-supported by:* Key Laboratory of Frontiers in Theoretical Physics (KLFTP), Bogoliubov Laboratory of Theoretical Physics (BLTP), China Center of Advanced Science and Technology (CCAST), and National Natural Science Foundation of China (NSFC).

### Sep. 6, Tuesday

08:15-09:00 Registration (**Room 322, Old Building, ITP/Beijing** 理论物理所老楼 322 会议室)

09:00-09:30 Opening & Workshop Photo

**09:30-10:30** Chair: **Huan-Qiao Zhang** (CIAE/Beijing)

(25+5) Victor Voronov (BLTP/Dubna): Ground state correlations in odd-A nuclei

(25+5) Yanlin Ye (Peking U):  $^8\text{He}$  – Structure and reaction mechanisms

**11:00-12:00** Chair: **Victor Voronov** (BLTP/Dubna)

(25+5) Haozhao Liang (Peking U/Beijing): A self-consistent relativistic study of nuclear spin-isospin resonances

(25+5) Alexey Severyukhin (BLTP/Dubna): Spin-isospin excitations in nuclei and a separable approximation for Skyrme interactions

**14:00-15:45** Chair: **Yanlin Ye** (Peking U) & **Andrey Vdovin** (BLTP/Dubna)

(25+5) Andrey Fomichev (FLNR/Dubna): Proton rich nuclei investigations at ACCULINNA fragment separator

(25+5) Sergey Sidorchuk (FLNR/Dubna): Correlation studies of light nuclei near and beyond the neutron drip-line

(25+5) Lulu Li (Peking U): Neutron halo in deformed nuclei

(12+3) Zhen-Hua Zhang (ITP/Beijing): Systematic investigation of the rotational bands in nuclei with  $Z \sim 100$

**16:15-18:00** Chair: **Sheng-Jiang Zhu** (Tsinghua U/Beijing) & **Feng Pan** (Liaoning Normal U/Dalian)

(25+5) Andrey Vdovin (BLTP/Dubna): Treating of hot nuclei within thermo field dynamics

(25+5) Valentin Nesterenko (BLTP/Dubna): General treatment of vortical, toroidal and compression modes

(25+5) Zhao-Qing Feng (IMP/Lanzhou): Probing the high-density nuclear equation of state from heavy-ion collisions

(12+3) Pengwei Zhao (Peking U/Beijing): Covariant density functional theory for magnetic and antimagnetic rotation

18:30-20:00 Reception (**Jinbaoge Teahouse** 金宝阁茶餐厅)

### Sep. 7, Wednesday

**08:30-10:00** Chair: **Jun-Qing Li** (IMP/Lanzhou) & **Jing-Dong Bao** (Beijing Normal U)

(25+5) Rostislav Jolos (BLTP/Dubna): M1 transitions between mixed-symmetry and fully symmetric collective states in gamma-soft nuclei

(25+5) Furong Xu (Peking U/Beijing): Extending nuclear landscape with high- $K$  isomers

(25+5) Yang Sun (Shanghai Jiaotong U): Nuclear shell model studies of exotic nuclei and implications in astrophysics

**10:30-12:00** Chair: **Andrey Fomichev** (FLNR/Dubna) & **Furong Xu** (Peking U/Beijing)

(25+5) Feng Pan (Liaoning Normal U/Dalian): The Heine-Stieltjes correspondence and the polynomial approach to the standard pairing problem

(25+5) Yan-An Luo (Nankai U/Tianjin): SD-pair Shell Model Study

(25+5) Lang Liu (Peking U/Beijing): No-Core MCSM calculation for  $^{10}\text{Be}$  and  $^{12}\text{Be}$  low-lying spectra

**14:00-16:00** Chair: **Gui-Lu Long** (Tsinghua U/Beijing) & **Yang Sun** (Shanghai Jiaotong U)

(25+5) Zhu-Xia Li (CIAE/Beijing): The dynamical study of low energy heavy ion collisions

(25+5) Gurgen Adamian (BLTP/Dubna): Possibilities of production of new superheavy nuclei

(25+5) Jing-Dong Bao (Beijing Normal U): Synthesis of superheavy element 119 via  $^{50}\text{Ti} + ^{249}\text{Bk}$  hot fusion reaction

(25+5) Hua-Lei Wang (Peking U/Beijing & Zhengzhou U/Zhengzhou): Octupole correlations in superheavy even-even nuclei with  $Z > 100$

**16:30-18:00** Chair: **Zhongyu Ma** (CIAE/Beijing) & **Wei Zuo** (IMP/Lanzhou)

(25+5) Andrey Zubov (BLTP/Dubna): Direct population of strongly deformed nuclear states

(25+5) Hong-Fei Zhang (Lanzhou U/Lanzhou): Structure and decay of superheavy nuclei

(25+5) Ming-Hui Huang (IMP/Lanzhou): The dynamical deformation in heavy ion collisions to form superheavy nuclei

18:30-20:00 Banquet (**Wuke Hotel** 物科宾馆)

## Sep. 8, Thursday

**08:30-10:00** Chair: **Jie Meng** (Peking U) & **Shi-Wei Yan** (Beijing Normal U)

(25+5) Peter Ring (Tech U Munich & Peking U/Beijing): Particle-vibration coupling in covariant density functional theory

(25+5) Wei Zuo (IMP/Lanzhou): Correlation between alpha-decay energies of superheavy nuclei

(25+5) Jianzhong Gu (CIAE/Beijing): Potential energy surfaces based on a combined method

**10:30-11:30** Chair: **Rostislav Jolos** (BLTP/Dubna) & **Zhu-Xia Li** (CIAE/Beijing)

(25+5) Nikolai Antonenko (BLTP/Dubna): Isomeric states in heaviest nuclei

(12+3) Fang-Qi Chen (Shanghai Jiaotong U/Shanghai): Vibrations and  $K$ -mixing in quasiparticle bands

(12+3) Bing-Nan Lu (ITP/Beijing): A multi-dimensional deformation constraint RMF model and its applications to hyper nuclei and heavy nuclei

11:30-11:35 Closing