Proceedings of the 2016 Dalian International Workshop on Nuclear Physics (2016DIWNP)

Dalian, China, July 20 -23, 2016

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Preface

This special issue contains the selected invited talks given at the 2016 Dalian International Workshop on Nuclear Physics (2016DIWNP) held in Dalian, China, from 20th to 23rd of July 2016. The 2016DIWNP was organized by colleagues from 12 institutions and universities including Bulgarian Academy of Sciences (Sofia, Bulgaria), China Institute of Atomic Energy (Beijing, China), East China Normal University (Shanghai, China), Institute of Modern Physics, CAS (Lanzhou, China), Lanzhou University (Lanzhou, China), Louisiana State University (Baton Rouge, LA, USA), Nanjing University (Nanjing, China), Nankai University (Tianjin, China), Peking University (Beijing, China), Shanghai Jiaotong University (Shanghai, China), and Liaoning Normal University (Dalian, China).

The aim of 2016DIWNP is to summarize the contemporary aspects and to formulate in a concise form the open problems in the study of nuclear structure, hadronic dynamics, heavy ion reaction, nuclear astrophysics and related topics. The idea is to combine up-to-date theoretical and experimental knowledge on the subjects and to outline possible further studies in these fields. A major practical aim of the 2016DIWNP is to collect scientists with expertise and to inspire possible collaborations on the subjects of common interests.

Topics in the 2016DIWNP included hadron physics, nuclear structure, nuclear astrophysics, and computational methods. During the Workshop there was also a special session on "Physics scholars in related industries" suggested by one of the organizers, Professor Fan Wang from Nanjing University, which was indeed very helpful and instructive to both PhD mentors and students. The Workshop was attended by 62 registered participants from countries including Bulgaria, China, India, Japan, and United States. There are 28 scientific talks in total.

It is a pity that there are quite a few invited talks not included in this proceedings due to various reasons. These talks are "Hyper-canonical energy-momentum and angular momentum tensors" by Xiangsong Chen (Huazhong University of Science and Technology, Wuhan, China), "The Future Electron Ion Collider Plan on HIAF" by Xurong Chen (Institute of Morden Physics, CAS, Lanzhou, China), "Kaon form factor via a non-perturbative QCD approach" by Fei Gao (Peking University, Beijing, China), "QCD phase transitions of finite size system via a nonperturbative QCD approach" by Yuxin Liu (Peking University, Beijing, China), "GPU accelerating and its application in scientific computation" by Fengyao Hou (Institute of Theoretical Physics, CAS, Beijing, China), "Asymmetric clustering in $N = Z$ nuclei and isoscalar monopole and dipole transitions" by Yohei Chiba (Hokkaido University, Sapporo, Japan), "Covariant density functional theory for nuclear structure" by Jie Meng (Peking University, Beijing, China), and "Realistic core Gamow shell model" by Furong Xu (PKU, Beijing, China).

Feng Pan, Jie Meng and Fan Wang
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