

**Exploring nuclear physics
across energy scales 2024:
intersection between nuclear
structure and high energy
nuclear collisions**

Report of Contributions

Contribution ID: 1

Type: **not specified**

Heavy-ion collisions and nuclear structure.

Monday, 15 April 2024 10:00 (1 hour)

Chair: Yu-Xin Liu

Presenter: BLAIZOT, Jean-Paul

Contribution ID: 2

Type: **not specified**

Collective phenomena in atomic nuclei. Status and modern challenges.

Monday, 15 April 2024 14:30 (1 hour)

Chair: Jie Meng

Presenter: RING, Peter

Contribution ID: 3

Type: **not specified**

Ab initio description of deformed intermediate-mass nuclei.

Tuesday, 16 April 2024 10:00 (1 hour)

Chair: Shan-Gui Zhou

Presenter: BALLY, Benjamin

Contribution ID: 4

Type: **not specified**

Probing Structure of nuclei available at relativistic heavy ion colliders.

Tuesday, 16 April 2024 14:30 (1 hour)

Chair: Huang Mei

Presenter: JIA, Jiangyong (Stony Brook University)

Contribution ID: 5

Type: **not specified**

NLEFT-Introduction and Perspectives.

Wednesday, 17 April 2024 10:00 (1 hour)

Chair: Bing-Song Zou

Presenter: MEISSNER, Ulf-G. (Universitaet Bonn and Forschungszentrum Juelich)

Contribution ID: 6

Type: **not specified**

Probing nuclear deformation in relativistic heavy ion collisions.

Wednesday, 17 April 2024 14:30 (1 hour)

Presenter: GIULIANO, Giacalone

Contribution ID: 7

Type: **not specified**

Overview for nuclear exotic deformation.

Thursday, 18 April 2024 10:00 (1 hour)

Chair: Zhong-Zhou Ren

Presenter: VRETENAR, Dario (U)

Contribution ID: 8

Type: **not specified**

Constraining symmetry energy from heavy-ion collisions.

Thursday, 18 April 2024 14:30 (1 hour)

Chair: De-Fu Hou

Presenter: XIAO, Zhi-Gan

Contribution ID: 9

Type: **not specified**

Heavy ion collisions in the era of Bayesian analyses.

Friday, 19 April 2024 10:00 (1 hour)

Chair: Zhenyu Chen

Presenter: NIJS, Govert (CERN)

Contribution ID: **10**

Type: **not specified**

Nuclear structure in the era of Bayesian analyses.

Friday, 19 April 2024 14:30 (1 hour)

Presenter: GODBEY, Kyle

Contribution ID: 11

Type: **not specified**

Overview of nuclear deformation and shape coexistence.

Wednesday, 24 April 2024 10:00 (1 hour)

Chair: Fu-Rong Xu

Presenter: ZIELINSKA, Magda (CEA Saclay)

Contribution ID: 12

Type: **not specified**

Bayesian analysis for Nuclear structure.

Wednesday, 24 April 2024 14:30 (1 hour)

Chair: Feng-Shou Zhang

Presenter: ZHANG, Xi-Lin

Contribution ID: 13

Type: **not specified**

Probing nuclear charge and mass radii in UPC.

Thursday, 25 April 2024 10:00 (1 hour)

Presenter: XU, Zhangbu (BNL)

Contribution ID: 14

Type: **not specified**

Neutron Skin and Its ties to Nuclear Equation of State.

Thursday, 25 April 2024 14:30 (1 hour)

Chair: Li-Sheng Geng

Presenter: DANIELEWICZ, Pawel (Michigan State University)

Contribution ID: 15

Type: **not specified**

Physics opportunities with SMOG2.

Friday, 26 April 2024 10:00 (1 hour)

Presenter: GRAZIANI, Giacomo (I)

Contribution ID: 16

Type: **not specified**

Nuclear structure/deformation from laser spectroscopy.

Friday, 26 April 2024 14:30 (1 hour)

Chair: Yan-Lin Ye

Presenter: YANG, Xiaofei

Contribution ID: 17

Type: **not specified**

Machine learning & explore nuclear structure with heavy ion collisions.

Saturday, 27 April 2024 10:00 (1 hour)

Chair Jun-Chen Pei

Presenter: PANG, LongGang (Central China Normal University)

Contribution ID: 18

Type: **not specified**

Advances in ab initio nuclear structure calculations based on MSRG method & neutrinoless double beta decay.

Saturday, 27 April 2024 14:30 (1 hour)

Chair: Bao-hua Sun

Presenter: YAO, Jiang-Ming

Contribution ID: 19

Type: **not specified**

QGP overview (theory)

Sunday, 21 April 2024 09:00 (30 minutes)

Chair: Yu-Xin Liu

Presenter: WANG, Xin-Nian (Central China Normal University/Lawrence Berkeley National Laboratory)

Contribution ID: 20

Type: **not specified**

Overview for Relativistic Heavy Ion Collisions.

Sunday, 21 April 2024 09:30 (30 minutes)

Chair: Yu-Xin Liu

Presenter: STOECKER, Horst

Contribution ID: 21

Type: **not specified**

Nuclear shapes within shell model.

Sunday, 21 April 2024 10:00 (30 minutes)

Chair: Yu-Xin Liu

Presenter: OTSUKA, Takaharu

Contribution ID: 22

Type: **not specified**

Coffee Break

Contribution ID: 23

Type: **not specified**

Emergence of nuclear clustering in ab initio nuclear theory.

Sunday, 21 April 2024 11:00 (30 minutes)

Chair Peng-Fei Zhuang

Presenter: LEE, Dean (Michigan State University)

Contribution ID: 24

Type: **not specified**

O+O and impact of clustering in high-energy collisions.

Sunday, 21 April 2024 11:30 (30 minutes)

Chair Peng-Fei Zhuang

Presenter: VAN DER SCHEE, Wilke

Contribution ID: 25

Type: **not specified**

Using the LHC as a nuclear physics machine.

Sunday, 21 April 2024 14:00 (30 minutes)

Chair: Feng Liu

Presenter: ZHOU, You (Niels Bohr Institute)

Contribution ID: 26

Type: **not specified**

Heavy ion experimental signatures of nuclear deformation.

Sunday, 21 April 2024 14:30 (30 minutes)

Chair: Feng Liu

Presenter: ZHANG, Chunjian

Contribution ID: 27

Type: **not specified**

Exploring nuclear structure with heavy ion collisions.

Sunday, 21 April 2024 15:00 (30 minutes)

Chair: Feng Liu

Presenter: SONG, Huichao

Contribution ID: 28

Type: **not specified**

New ions operation in the CERN Accelerator Complex in future LHC.

Sunday, 21 April 2024 16:00 (30 minutes)

Chair: Yu-Hu Zhang

Presenter: SLUPECKI, Maciej

Contribution ID: 29

Type: **not specified**

Potential nuclear physics study at HIAF.

Sunday, 21 April 2024 16:30 (30 minutes)

Chair: Yu-Hu Zhang

Presenter: WANG, Meng

Contribution ID: **30**

Type: **not specified**

Discussion

Sunday, 21 April 2024 17:00 (1 hour)

Chair: Yu-Hu Zhang

Presenter: JIA, Jiangyong

Contribution ID: 31

Type: **not specified**

Theoretical approaches for nuclear clustering.

Monday, 22 April 2024 09:00 (30 minutes)

Chair: Dai-Cui Zhou

Presenter: KIMURA, Masaaki

Contribution ID: 32

Type: **not specified**

Exotic nuclear shapes at low and high excitations emerged with shell- model configuration mixing.

Monday, 22 April 2024 09:30 (30 minutes)

Chair: Dai-Cui Zhou

Presenter: SUN, Yang

Contribution ID: 33

Type: **not specified**

Impact of nuclear shapes in low-energy nuclear reactions.

Monday, 22 April 2024 10:00 (30 minutes)

Chair: Dai-Cui Zhou

Presenter: HAGINO, Kouichi

Contribution ID: 34

Type: **not specified**

Neutron Skin and Connection the equation of state of nuclear matter.

Monday, 22 April 2024 11:00 (30 minutes)

Chair: Fu-Qiang Wang

Presenter: ROCA-MAZA, Xavier

Contribution ID: 35

Type: **not specified**

Explore neutron skin with heavy ion collisions.

Monday, 22 April 2024 11:30 (30 minutes)

Chair: Fu-Qiang Wang

Presenter: XU, Haojie

Contribution ID: 36

Type: **not specified**

Hydrodynamic modeling of high-energy nuclear collisions.

Monday, 22 April 2024 14:00 (30 minutes)

Chair: Guan-You Qin

Presenter: HIRANO, Tetsufumi

Contribution ID: 37

Type: **not specified**

AMPT with clustering & nuclear structure effects.

Monday, 22 April 2024 14:30 (30 minutes)

Chair: Guan-You Qin

Presenter: MA, Guo-Liang

Contribution ID: **38**

Type: **not specified**

Nuclear clustering in ab initio nuclear theory.

Monday, 22 April 2024 15:30 (30 minutes)

Chair: Wen-Hui Long

Presenter: LV, Bing-Nan

Contribution ID: 39

Type: **not specified**

Alpha clustering and condensation in light nuclei.

Monday, 22 April 2024 16:00 (30 minutes)

Chair: Wen-Hui Long

Presenter: ZHOU, Bo

Contribution ID: 40

Type: **not specified**

Discussion

Monday, 22 April 2024 16:30 (1 hour)

Chair: Wen-Hui Long

Presenter: GIULIANO, Giacalone

Contribution ID: 41

Type: **not specified**

High order deformation of heavy nuclei.

Tuesday, 23 April 2024 09:00 (30 minutes)

Chair: Yu-Ming Zhao

Presenter: ZHAO, Peng-Wei

Contribution ID: 42

Type: **not specified**

Nuclear shape phase transition in relativistic density functional theory.

Tuesday, 23 April 2024 09:30 (30 minutes)

Chair: Yu-Ming Zhao

Presenter: LI, Zhipan

Contribution ID: 43

Type: **not specified**

Algebraic model theory for nuclear shape phase transitions.

Tuesday, 23 April 2024 10:00 (30 minutes)

Chair: Yu-Ming Zhao

Presenter: YU, Zhang

Contribution ID: 44

Type: **not specified**

Hydrodynamics and nuclear structure.

Tuesday, 23 April 2024 11:00 (30 minutes)

Chair: Qun Wang

Presenter: LUZUM, Matthew

Contribution ID: 45

Type: **not specified**

Hydrodynamics & Bayesian analysis.

Tuesday, 23 April 2024 11:30 (30 minutes)

Chair: Qun Wang

Presenter: NONAKA, Chiho

Contribution ID: 46

Type: **not specified**

Short range correlations and medium modification in nuclei.

Tuesday, 23 April 2024 14:00 (30 minutes)

Chair: Li Yan

Presenter: YE, Zhi-Hong

Contribution ID: 47

Type: **not specified**

EIC & nuclear structure.

Tuesday, 23 April 2024 14:30 (30 minutes)

Chair: Li Yan

Presenter: XING, Hongxi

Contribution ID: 48

Type: **not specified**

Nuclear Structure aspects of the neutrinoless double beta decay.

Tuesday, 23 April 2024 15:00 (30 minutes)

Chair: Li Yan

Presenter: CHANG-FENG, Jiao

Contribution ID: 49

Type: **not specified**

Bayesian analysis for relativistic heavy ion collisions.

Tuesday, 23 April 2024 16:00 (30 minutes)

Chair Huichao Song

Presenter: KE, Wei-Yao

Contribution ID: 50

Type: **not specified**

Machine learning in nuclear physics at low and intermediate energies.

Tuesday, 23 April 2024 16:30 (30 minutes)

Chair Huichao Song

Presenter: ZHANG, Ying-Xun

Contribution ID: 51

Type: **not specified**

Discussion

Tuesday, 23 April 2024 17:00 (1 hour)

Chair Huichao Song

Presenter: ZHOU, You (Niels Bohr Institute)