

Vortex states in nuclear and particle physics



Report of Contributions

Contribution ID: 1

Type: **not specified**

Welcome reception

Wednesday, 24 April 2024 18:00 (1h 30m)

Contribution ID: 2

Type: **not specified**

Electron Waves Carrying Orbital Angular Momentum: a historical overview of the early work

Thursday, 25 April 2024 09:10 (40 minutes)

Presenter: Prof. NORI, Franco ((online))

Session Classification: Talks

Contribution ID: 3

Type: **not specified**

Vortex beams at high-energy accelerators: generation strategies and measurement techniques

Thursday, 25 April 2024 09:50 (40 minutes)

Presenter: Prof. KARLOVETS, Dmitry

Session Classification: Talks

Contribution ID: 4

Type: **not specified**

Collision studies with vortex electrons and ions

Thursday, 25 April 2024 14:00 (40 minutes)

Presenter: Prof. SURZHYKOV, Andrey

Session Classification: Talks

Contribution ID: 5

Type: **not specified**

Vortex effects in QED scattering of high energy particles

Thursday, 25 April 2024 11:00 (40 minutes)

Presenter: Prof. Ji, Liangliang

Session Classification: Talks

Contribution ID: 6

Type: **not specified**

New results on vortex electron photoemission and scattering by atomic targets

Saturday, 27 April 2024 09:00 (30 minutes)

Presenter: Dr CHAIKOVSKAIA, Alisa

Session Classification: Talks

Contribution ID: 7

Type: **not specified**

Vortex electron scattering by atomic targets

Thursday, 25 April 2024 14:40 (30 minutes)

Presenter: STRNAT, Sophia

Session Classification: Talks

Contribution ID: 8

Type: **not specified**

Twisting Wavefunctions of Relativistic Electrons via Intense Laser Pulses

Thursday, 25 April 2024 15:10 (30 minutes)

Presenter: Dr BU, Zhigang

Session Classification: Talks

Contribution ID: 9

Type: **not specified**

The superkick effect in high-energy vortex state collisions

Friday, 26 April 2024 17:10 (30 minutes)

Presenter: LIU, Bei (Sun Yat-Sen (Zhongshan) University)

Session Classification: Talks

Contribution ID: 10

Type: **not specified**

Detecting the Vortex state of high-energy electrons through elastic electron scattering

Friday, 26 April 2024 17:40 (30 minutes)

Presenter: LI, Zhengjiang

Session Classification: Talks

Contribution ID: 11

Type: **not specified**

Atomic Spectroscopy with Twisted Photons

Friday, 26 April 2024 09:00 (40 minutes)

Presenter: Prof. AFANASEV, Andrei

Session Classification: Talks

Contribution ID: 12

Type: **not specified**

Structured Quantum Waves: From Light to Matter Waves

Friday, 26 April 2024 09:40 (40 minutes)

Presenter: Prof. FICKLER, Robert

Session Classification: Talks

Contribution ID: 13

Type: **not specified**

A novel way to study nuclear giant resonances with vortex gamma photons

Friday, 26 April 2024 10:50 (40 minutes)

Presenter: Prof. NIU, Yifei (Lanzhou University)

Session Classification: Talks

Contribution ID: 14

Type: **not specified**

Generation of Vortex Gamma Photons and Manipulation of Giant Multipole Resonances via nonlinear Compton scattering

Thursday, 25 April 2024 11:40 (40 minutes)

Presenter: Prof. LI, Jian-Xing

Session Classification: Talks

Contribution ID: 15

Type: **not specified**

Structured neutron waves

Friday, 26 April 2024 11:30 (40 minutes)

Presenter: Prof. PUSHIN, Dmitry

Session Classification: Talks

Contribution ID: 16

Type: **not specified**

Time-like proton form factors with vortex states

Friday, 26 April 2024 16:10 (30 minutes)

Presenter: Dr KORCHAGIN, Nikolai (Sun Yat-sen University)

Session Classification: Talks

Contribution ID: 17

Type: **not specified**

Production of Neutron with Orbital Angular Momentum for Fundamental Physics Experiments

Friday, 26 April 2024 15:10 (30 minutes)

Presenter: GEERITS, Niels

Session Classification: Talks

Contribution ID: **18**

Type: **not specified**

Nuclear excitation by electron capture with electron vortex beams

Friday, 26 April 2024 14:00 (40 minutes)

Presenter: Prof. WU, Yuanbin

Session Classification: Talks

Contribution ID: 19

Type: **not specified**

Nuclear photoabsorption in ^{229}Th using twisted light

Friday, 26 April 2024 14:40 (30 minutes)

Presenter: KIRSCHBAUM, Tobias

Session Classification: Talks

Contribution ID: 20

Type: **not specified**

Discussion: vortex states prospects and challenges

Thursday, 25 April 2024 16:10 (1 hour)

Session Classification: Discussion

Contribution ID: 21

Type: **not specified**

Generation of relativistic vortex laser and its application in High Field physics

Presenter: Prof. YU, Tongpu (国防科技大学)

Session Classification: Talks

Contribution ID: 22

Type: **not specified**

TBA

Presenter: ZOU, Liping (Sun Yat-sen University)

Session Classification: Talks

Contribution ID: 23

Type: **not specified**

The motion of twisted particles in a stellar gravitational field

Saturday, 27 April 2024 09:30 (30 minutes)

Presenter: Dr LIAN, Dandan

Session Classification: Talks

Contribution ID: 24

Type: **not specified**

Dynamics and radiation of vortex electrons in magnetic fields

Saturday, 27 April 2024 10:30 (30 minutes)

Presenter: SIZYKH, Georgii

Session Classification: Talks

Contribution ID: 25

Type: **not specified**

Momentum space oscillation properties of vortex states collision

Friday, 26 April 2024 16:40 (30 minutes)

Presenter: ZHAO, Pengcheng

Session Classification: Talks

Contribution ID: 26

Type: **not specified**

Closing remarks

Saturday, 27 April 2024 12:00 (10 minutes)

Presenter: Prof. IVANOV, Igor (SYSU, School of Physics and Astronomy)

Session Classification: Talks

Contribution ID: 27

Type: **not specified**

Welcome address

Thursday, 25 April 2024 09:00 (10 minutes)

Presenter: Prof. IVANOV, Igor (YSU, School of Physics and Astronomy)

Session Classification: Talks

Contribution ID: 28

Type: **not specified**

Generalized Gouy Rotation of Electron Vortex beam in a uniform magnetic field

Saturday, 27 April 2024 11:30 (30 minutes)

Presenter: MENG, Qi

Session Classification: Talks

Contribution ID: 29

Type: **not specified**

Generating relativistic-intensity vortex laser by microstructure plasma target

Saturday, 27 April 2024 11:00 (30 minutes)

Presenter: ZHANG, Hao

Session Classification: Talks