

Mini-workshop on “Quantum effects in atomic and particle physics”

Wednesday, 18 December 2024

Morning session: Morning session 1 (09:00 - 10:40)

-Conveners: Pengming ZHANG

time	[id] title	presenter
09:00	[1] Quantum effects in photon emission by electron wave packets in magnetic fields and matter	KARLOVETS, Dmitry
09:40	[2] Vortex state collisions for particle physics	Prof. IVANOV, Igor
10:10	[11] Relativistic hydrodynamics with vorticity: Can a vortical initial quantum hadronic state become a vortical quark-gluon-plasma?	Prof. TORRIERI, Giorgio

Morning session: Morning session 2 (11:10 - 12:40)

time	[id] title	presenter
11:10	[3] Can we produce vortex ions at SYSU?	ZOU, Liping
11:40	[4] Unambiguous detection of high energy vortex states via the superkick effect	Mr LIU, Shiyu
12:10	[5] Super light-by-light scattering in vacuum induced by intense vortex lasers	Dr BU, Zhigang

Thursday, 19 December 2024

Morning session: Morning session 3 (09:00 - 10:20)

time	[id]	title	presenter
09:00	[6]	Manipulating isomers via NEEC	Prof. WU, Yuanbin
09:40	[7]	Coherent Axion Production through Laser Crystal Interaction	Dr BAI, Zhan

Morning session: Morning session 4 (10:50 - 12:20)

time	[id]	title	presenter
10:50	[8]	Generating entangled vortex photons via induced emission	Mr GROSMAN, Dmitrii
11:20	[9]	Studying time-like proton form factors using vortex state $ppbar$ annihilation	KORCHAGIN, Nikolai
11:50	[10]	Properties of vortex muon decay: from rotational symmetric states to asymmetric spin-orbit states	Dr ZHAO, Pengcheng