

Cosmo-Astro-Particle Symposium (CAP 2025) & The 19th TeV Workshop

Thursday, 11 December 2025

Plenary session: Particle theory (09:15 - 10:30)

-Conveners: Zhong-Zhi Xianyu

time	[id]	title	presenter
09:15	[60]	Opening	AN, Haipeng
09:30	[28]	Searching for new physics at colliders	CAO, Qing-Hong
10:00	[54]	(New) physics around the supermassive black hole	SHU, Jing

Plenary session: Gravitational waves (11:00 - 12:00)

-Conveners: Haipeng An

time	[id]	title	presenter
11:00	[4]	Using the Moon to Detect Gravitational-Wave Background	CHEN, Xian
11:30	[38]	Kilohertz Gravitational Wave Astronomy	YANG, Huan

Friday, 12 December 2025

Plenary session: Collider (09:00 - 10:30)

-Conveners: Xiaojun Bi

time	[id]	title	presenter
09:00	[29]	New physics searching results from the ATLAS collaboration	OKAWA (大川), Hideki (英希)
09:30	[35]	New physics searching results from the CMS collaboration	WANG, Zirui
10:00	[30]	Recent new physics searching results from the LHCb collaboration	SUN, Liang

Plenary session: New physics: collider and lattice QCD (11:00 - 12:30)

-Conveners: Fei Gao

time	[id]	title	presenter
11:00	[32]	Progress and physics goals of the STCF	PENG, Haiping
11:30	[31]	Latest progress and physics goals of CEPC	GUIMARAES DA COSTA, Joao
12:00	[36]	Lattice QCD in Searching for New Physics	JI, Xiangdong

Plenary session: Dark matter (16:30 - 18:00)

-Conveners: Chen Zhou

time	[id]	title	presenter
16:30	[39]	Formation of the Little Red Dots from the core-collapse of self-interacting dark-matter halos	JIANG, Fangzhou
17:00	[26]	Probing Heavy Dark Matter in Red Giants	YUN, Seokhoon
17:30	[44]	Status and progress of dark matter direct detection experiments	LIN, Qing

Saturday, 13 December 2025

Plenary session: Particle theory (09:00 - 10:30)

-Conveners: Junwu Huang

time	[id] title	presenter
09:00	[13] Ultimate Quantum Precision Limit at Colliders: Conditions and Case Studies	LIU, Jia
09:30	[19] Probing light dark matter in direct detection and neutrino experiments	WU, Lei
10:00	[40] Probing the Pulsar Explanation of the Galactic-Center GeV Excess Using Continuous Gravitational-Wave Searches	ZHAO, Yue

Plenary session: Dark matter and cosmic rays (11:00 - 12:30)

-Conveners: Jia Liu

time	[id] title	presenter
11:00	[41] No cosmological constraints on dark photon dark matter from resonant conversion	HUANG, Junwu
11:30	[7] Radio Search of Dark Matter	Prof. MA, Yin-Zhe
12:00	[42] Recent results from lhaaso	BI, Xiao-Jun

Plenary session (14:00 - 15:30)

-Conveners: Lei Wu

time	[id] title	presenter
14:00	[37] Origin of Mass and Scattering Amplitudes: from Higgs to Kaluza-Klein and Chern-Simons	HE, Hongjian
14:30	[33] Recent progress in dynamical dark energy and gravitational-wave observations	ZHANG, Xinming
15:00	[43] Gravothermal Collapse in Dark Matter Halos: Physics, Predictions, and Evidence	YU, Haibo

Plenary session (16:00 - 17:30)

-Conveners: Yin-Zhe Ma

time	[id] title	presenter
16:00	[22] Probe Neutrino & Dark Matter with Cosmic Gravitational Focusing	GE, Shao-Feng
16:30	[46] Numerical simulation of symmetry breaking	BIAN, Ligong
17:00	[16] Dark Photon Oscillations in Waveguide	王, 雯宇

Sunday, 14 December 2025

Plenary session: Cosmology (14:00 - 15:30)

-Conveners: Haipeng An		
time	[id] title	presenter
14:00	[48] Tunneling rate at finite temperature	YAMAGUCHI, Masahide
14:30	[49] Inflationary QCD phase diagram	NOUMI, Toshifumi
15:00	[50] A Hidden Pattern in Cosmological Correlators	LEE, Hayden

Plenary session (16:00 - 18:00)

-Conveners: Zhong-Zhi Xianyu		
time	[id] title	presenter
16:00	[51] Flowing one-point correlator in QCD	SUN, Minho
16:30	[52] Search Results for Physics Beyond the Standard Model with LIGO-Virgo-KAGRA's O1-O4a Runs	GUO, Huaike
17:00	[6] Search for Dark Higgs and Triple Higgs at ATLAS	LI, Shu
17:30	[53] Symbolic Reduction of Multi-loop Feynman Integrals via Generating Functions	FENG, Bo