



# 2025 Postdoctoral Frontier Symposium in Physics and Astronomy

Thursday, 25 September 2025

Particle and Nuclear Physics: Opening and Self Instroduction - Tsung-Dao Lee Institute/N6F-N600 - Lecture Room (08:50 - 09:00)

Particle and Nuclear Physics: Session 1 - Tsung-Dao Lee Institute/N6F-N600 - Lecture Room (09:00 - 10:20)

-Conveners: Haijun Yang

time	[id]	title	presenter
09:00	[69]	The Landscape of Artificial Intelligence in Particle Physics	QU, Huilin
09:20	[45]	Foundation Models for Collider Physics: AI as a Tool for Discovery	Dr ZHANG, Yulei
09:40	[72]	Particle flow in future lepton collider	GUO, Fangyi
10:00	[43]	Reconstructing Laurent expansion of rational functions using p-adic numbers	XIA, Tianya

Particle and Nuclear Physics: Break (10:20 - 10:40)

Particle and Nuclear Physics: Session 2 - Tsung-Dao Lee Institute/N6F-N600 - Lecture Room (10:40 - 12:00)

-Conveners: Xun Chen

time	[id]	title	presenter
10:40	[36]	Gamma-Ray and AntiMatter survey(GRAMS) experiment	ZENG, JIANCHENG
11:00	[58]	New Ideas on Indirect Probes of Axions	XIAO, Huangyu
11:20	[63]	Bias with a timer: Axion Dark Matter and Domain Wall	NAKAGAWA, Shota
11:40	[57]	Search for Inelastic-scattering signature in PandaX-4T	HAN, chencheng

Particle and Nuclear Physics: Lunch Break (12:00 - 14:00)

Particle and Nuclear Physics: Session 3 - Tsung-Dao Lee Institute/N6F-N600 - Lecture Room (14:00 - 15:20)

-Conveners: Yuichiro Nakai

time	[id]	title	presenter
14:00	[53]	Bridging Energy Scales in Neutrino Physics: Insights from JUNO and TRIDENT	MORTON-BLAKE, Iwan
14:20	[65]	Constraining Neutrino Interaction Uncertainties with the SAND Near Detector at DUNE	BATTISTI, Federico
14:40	[55]	Muon Secondary Particles Study in JUNO Experiment	赖, 浩菁

15:00	[44] Global analysis of fragmentation functions to light neutral hadrons	刘, 重阳
-------	--------------------------------------------------------------------------	-------

Particle and Nuclear Physics: Poster Session & Networking Break - Tsung-Dao Lee Institute/N6F-N600 -  
Lecture Room (15:20 - 17:00)

# Friday, 26 September 2025

## Particle and Nuclear Physics: Session 4 - Tsung-Dao Lee Institute/N6F-N600 - Lecture Room (09:00 - 10:20)

-Conveners: Shu Li

time	[id]	title	presenter
09:00	[60]	Pretraining jet models for physics at the Large Hadron Collider	LI, Congqiao
09:20	[62]	Optical imaging of particle tracks in scintillators	JIANG, Junjie
09:40	[83]	Recent Progress of DarkSHINE R&D	ZHU, Yifan
10:00	[28]	Strange Metals from Disorder	WANG, Yili

## Particle and Nuclear Physics: Break - Tsung-Dao Lee Institute/N6F-N600 - Lecture Room (10:20 - 10:40)

## Particle and Nuclear Physics: Session 5 - Tsung-Dao Lee Institute/N6F-N600 - Lecture Room (10:40 - 12:00)

-Conveners: Jason L Evans

time	[id]	title	presenter
10:40	[35]	Unitarity of Higgs inflation and $\mathcal{R}^2$ correction	HE, Minxi
11:00	[54]	Curvature perturbation and GW induced by U(1) symmetry breaking during inflation	LI, Tingyu
11:20	[39]	Cosmological First-order Phase Transition Aspects: Supercooling and Gauge Invariance	LI, Jinzheng
11:40	[40]	Implications of Topological Field Configurations for Baryon Asymmetry and Dark Matter	WU, Yanda

## Particle and Nuclear Physics: Lunch Break (12:00 - 14:00)

## Particle and Nuclear Physics: Session 6 (14:00 - 15:00)

-Conveners: Jianglai Liu

time	[id]	title	presenter
14:00	[68]	Search for Long-lived Particles at Future Lepton Colliders Using Leptons and Jets	CHEN, Xiang
14:20	[48]	Higgs hadronic decay at CEPC	WANG, Xinzhu
14:40	[67]	Search for Higgs Boson Decays to Z Gamma Process with ATLAS Partial Run 3 Combined with Full Run 2 Data	LIU, Kang

## Particle and Nuclear Physics: Closing - Tsung-Dao Lee Institute/N6F-N600 - Lecture Room (15:00 - 15:10)