

Welcome to KEK Theory Workshop 2025

Kohtaroh Miura on Behalf of Organizers

KEK, Institute of Particle and Nuclear Studies, Theory Center

December 16 Tuesday, 2025 at KEK Tsukuba Campus

Our Team

Local Organizers:

Yuta Hamada	(KEK)
Gregory Joseph Loges	(KEK)
Kohtaroh Miura	(KEK)
Shun'ya Mizoguchi	(KEK/SOKENDAI)
Jun Nishimura	(KEK/SOKENDAI)
Hiroki Ohata	(KEK)

Secretary: Yuko Ohno (KEK) and Tomoko Numata (KEK)

Goal of KEKTH-2025

String Theory $\rightarrow$ KEKTH
original Focus 199X ~ 200X

- M-Theory
- D-brane
- Duality
- AdS/CFT
- Matrix Model
- $\vdots$

Goal of KEKTH-2025

String Theory

- M-Theory
- D-brane
- Duality
- AdS/CFT
- Matrix Model
- ⋮

BSM

Dark Matter, SUSY, Axion, ---

Cosmology

Inflation, Black Hole, Gravity Waves,
Baryogenesis, ---

Non-Perturbative Gauge Theory

QCD (XQCD), Holography, Chiral G.T. ---

Math-Physics

Integrability, Non-Invertible Symm. ---

Quantum Information

Ryu-Takayama, Isomol, Entanglement ---

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BSM
Dark Matter, SUSY, Axion, ---

Inflation, Black Hole, Gravity Waves,
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DCD (XDCD), Holography, Chiral G.T.

Integrability, Non-Invertible Symm.

Ryu-Takayamagi, Island, Entongtomat

- Real Time QFT
- Non Equilibrium QFT
- Open Quantum System
- Sign Problem
- Bootstrap
- Complex Langevin
- Lefschetz Thimble
- ...

Goal of KEKTH-2025

We encourage you to ask questions
at any time during plenary/parallel talks,
not necessarily in the last 10-min. or 5-min. question times.

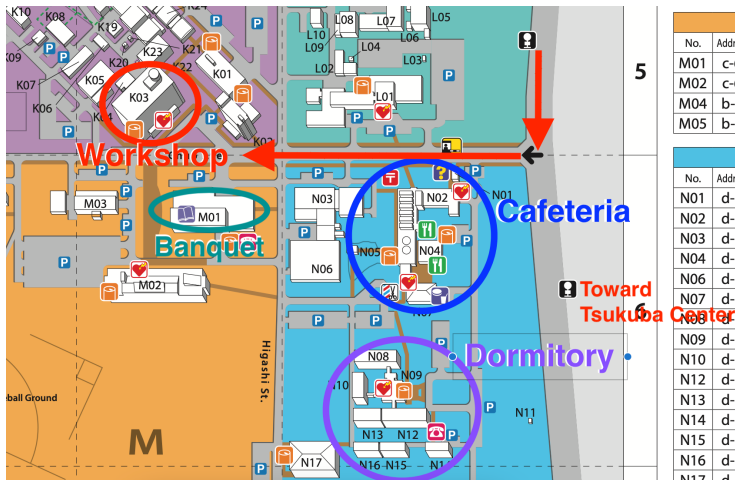
Practical Information

- Wifi: eduroam or keyaki, where the latter is accessible via
 - 1 go to <http://www.kek.jp/>
 - 2 Event name: KEK Theory workshop 2025 / Event Password: kekth2025
 - 3 SSID: keyaki / Password: guestnet.2014
- Slide upload to KEK-Cloud:
 - Please indicate your name in the file.
 - Link: <https://kekcloud.kek.jp/index.php/s/mMkeMQ6n2BMZZS>
 - PS: aki7Pk3Psa
- Banquet: Dec.16 (Tue) 18:30 at lounge in Kenkyu Honkan (Building M01).
- Group Photo: Dec.17(Wed) 11:45, just after the morning session, in front of this building.

Practical Information

- Tsuku-Bus between KEK and Tsukuba Center:
https://www2.kek.jp/rso/Access/pdf/KEK_Center.pdf
- Urban Hotel Shuttlebus, Departure Time:
 - 16th From Hotel To KEK: 08:50AM, From KEK To Hotel: 18:30 & 20:30
 - 17th From Hotel To KEK: 09:00AM, From KEK To Hotel: 18:50
 - 18th From Hotel To KEK: 09:00AM

Campus Map



ZONE-M		
No.	Address	Name
M01	c-6	Kenkyu Honkan Bldg.
M02	c-6	Yon-Go-Kan Bldg.
M04	b-6	Radiation Contol
M05	b-6	Chemistry Lab.

ZONE-N		
No.	Address	Name
N01	d-6	Information Center
N02	d-6	KEK Interenational Center
N03	d-6	Computer North Bldg.
N04	d-6	Cafeteria
N06	d-6	Computer South Bldg.
N07	d-6	Employee's Center
N08	d-6	Domitory No.2
N09	d-6	Dormitory Commons
N10	d-6	Domitory No.3
N12	d-6	Domitory No.1
N13	d-6	Domitory No.4
N14	d-6	Guest House A
N15	d-6	Guest House B
N16	d-6	Guest House C
N17	d-6	Gymnasium

Summary

Enjoy KEK Theory Workshop 2025!