

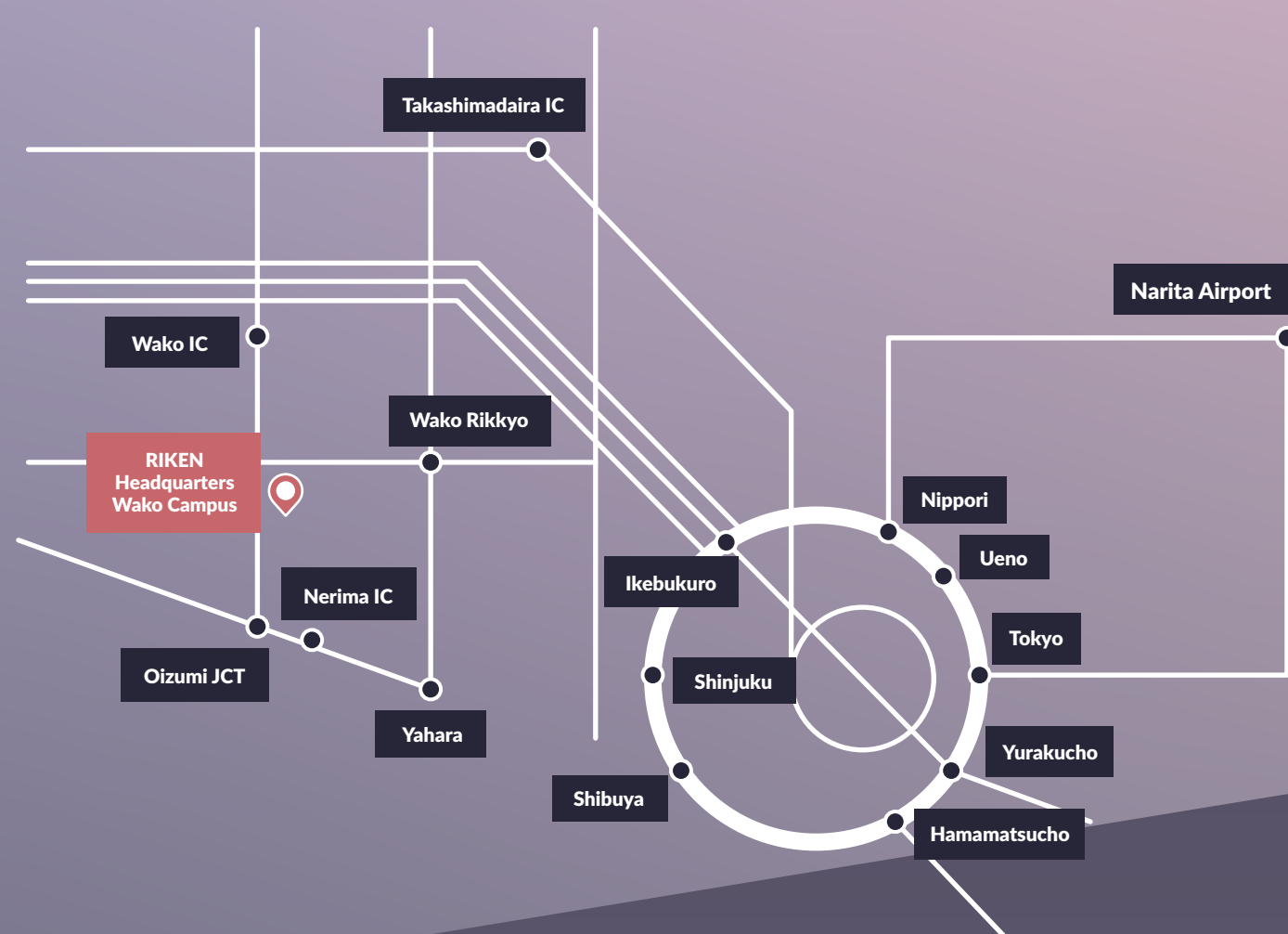
RIKEN Theory Symposium

DAY1
7/9
WED
9:20
17:15

DAY2
7/10
THU
9:30
16:55

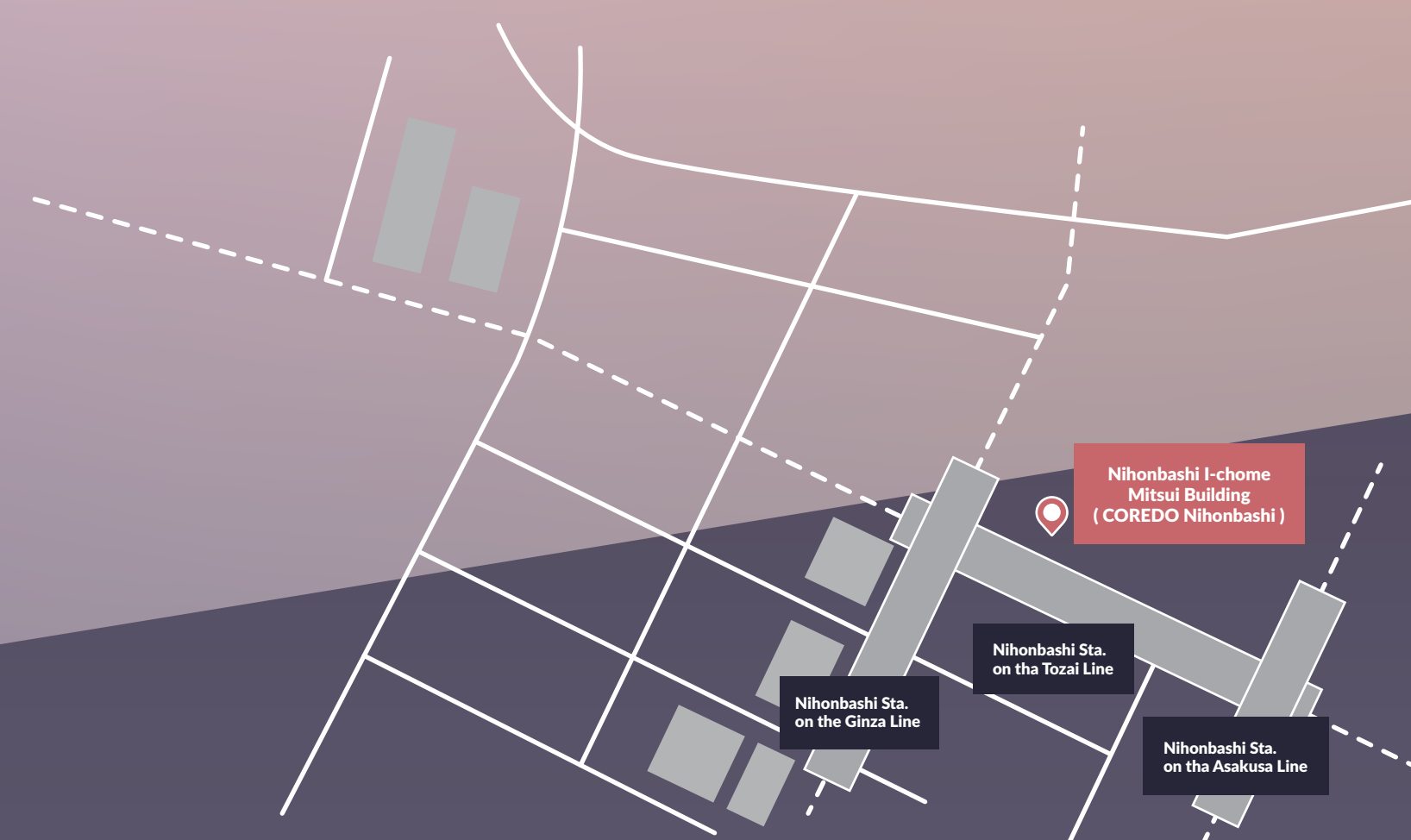
This symposium will bring together leading theorists from the fields of artificial intelligence, quantum information, quantum field theory, quantum gravity, and related areas of mathematics. It aims to stimulate interactions and collaborations across these diverse fields by fostering cross-disciplinary dialogue. It is organized by RIKEN's Pioneering Research Institute (PRI) together with the Center for Interdisciplinary Theoretical and Mathematical Sciences (iTHEMS), and the Center for Advanced Intelligence Project (AIP).

Venue



Suzuki Umetaro Hall (RIKEN Wako Campus)

2-1, Hirosawa, Wako, Saitama 351-0198, Japan



Tokyo Open Space (COREDO Nihonbashi)

Nihonbashi 1-chome Mitsui Building, 15th floor,
1-4-1 Nihonbashi, Chuo-ku, Tokyo 103-0027, Japan



Chair



Hiroshi Ooguri
Caltech & UTokyo

Speaker



Daniel Jafferis
Harvard University



Sameer Murthy
King's College London



Sergei Gukov
California Institute of Technology



Masazumi Honda
RIKEN iTHEMS/Saitama University



Richard Kueng
Johannes Kepler University Linz



Yifan Wang
New York University



Yichul Choi
Institute for Advanced Study



Yuya Kusuki
Kyusyu University/RIKEN iTHEMS



Heeyeon Kim
KAIST



Yuto Moriwaki
RIKEN iTHEMS



Kantaro Ohmori
University of Tokyo

RIKEN Theory Symposium

2025

DAY1

7/9
WED

Schedule

Venue Suzuki Umetaro Hall (RIKEN Wako Campus)

09:00 Reception Opens
09:20 - 09:30 Opening Remarks : Hiroshi Ooguri
09:30 - 10:15 Daniel Jafferis Title : Tensor models for 3d gravity
10:15 - 10:45 Tea Time Meeting
10:45 - 11:30 Sameer Murthy Title : Supersymmetric index of black holes and black strings
11:30 - 13:00 Lunch Meeting

Special AIP-PRI-iTHEMS Joint Seminar

Venue Tokyo Open Space (COREDO Nihonbashi)

14:00 - 14:30 Tea Time Meeting
14:30 - 15:15 Sergei Gukov Title : Math + AI = AGI
15:15 - 16:00 Masazumi Honda Title : Fracton topological phases and Foliated field theories
16:00 - 16:30 Break
16:30 - 17:15 Richard Kueng Title : Learning to predict ground state properties of gapped Hamiltonians

The session at Tokyo Open Space (COREDO Nihonbashi) is open only to RIKEN affiliations.

DAY2

7/10
THU

Schedule

Venue Suzuki Umetaro Hall (RIKEN Wako Campus)

09:10 Reception Opens
09:30 - 10:15 Yifan Wang Title : Pinning Defects, Fusion and Factorization
10:15 - 10:45 Tea Time Meeting
10:45 - 11:30 Yichul Choi Title : Non-Invertible Symmetry and Entanglement Entropy
11:30 - 11:45 Break
11:45 - 12:30 Yuya Kusuki Title : Non-invertible Symmetries on Non-orientable Surfaces
12:30 - 14:00 Lunch Meeting
14:00 - 14:45 Heeyeon Kim Title : 3d TFTs from 4d N=2 BPS particles
14:45 - 15:15 Tea Time Meeting
15:15 - 16:00 Yuto Moriwaki Title : On mathematical formulations of conformal field theory
16:00 - 16:45 Kantaro Ohmori Title : Higher Representation Theory and Excitations of Gauge Theories
16:45 - 16:55 Closing Remarks : Motoko Kotani

Organizer

RIKEN Pioneering Research Institute (PRI)

Co-organizers

RIKEN Center for Interdisciplinary Theoretical and Mathematical Sciences(iTHEMS)

RIKEN Center for Advanced Intelligence Project (AIP)

理化学研究所
RIKEN

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Pioneering Research Institute

iTHEMS

AIP

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