



# Challenges and opportunities in Lattice QCD simulations and related fields

## Wednesday 15 February 2023

### Talk session - Lecture Hall (6F) (10:00 - 12:00)

-Conveners: Yasumichi Aoki

time	[id] title	presenter
10:00	[58] Machine learning and Lattice QCD	TOMIYA, Akio
10:45	[47] Gauge-equivariant neural networks as preconditioners in lattice QCD	WETTIG, Tilo
11:30	[44] Nucleon structure from lattice QCD on $(10 \text{ fm})^4$ at the physical point	SASAKI, Shoichi

### Talk session - Lecture Hall (6F) (13:30 - 15:40)

-Conveners: Yoshifumi Nakamura

time	[id] title	presenter
13:30	[37] Pion light-cone distribution amplitude from a heavy-quark operator product expansion	LIN, C.-J. David
14:15	[52] B meson exclusive semileptonic decays from JLQCD	KANEKO, Takashi
14:45	[71] Inclusive semi-leptonic decays of charmed mesons with Möbius domain wall fermions	KELLERMANN, Ryan
15:10	[42] Emergence of an expanding (3+1)-dimensional spacetime in the type IIB matrix model	AZUMA, Takehiro

# Thursday 16 February 2023

## Talk session - Seminar Room (1F) (09:30 - 10:30)

-Conveners: Taku Izubuchi

time	[id] title	presenter
09:30	[59] Gradient flow, the renormalization group beta function and further applications	WITZEL, Oliver
10:00	[39] What is chiral susceptibility probing?	FUKAYA, Hidenori

## Talk session - Seminar Room (1F) (11:00 - 12:15)

-Conveners: Taku Izubuchi

time	[id] title	presenter
11:00	[26] QCD software and algorithms for the exascale	BOYLE, Peter
11:45	[56] Finite temperature QCD phase transition with 3 flavors of Mobius domain wall fermions	ZHANG, Yu

## Talk session - Seminar Room (1F) (13:30 - 15:30)

-Conveners: Shoji Hashimoto

time	[id] title	presenter
13:30	[28] HPC simulation of quantum computer	ITO, Nobuyasu
14:15	[53] Quantum simulation for correlated quantum many-body systems on noisy quantum devices	Dr SUN, Rongyang
14:45	[38] Sign problem and the Worldvolume Hybrid Monte Carlo method	FUKUMA, Masafumi

## Talk session - Seminar Room (1F) (16:00 - 17:30)

-Conveners: Katsumasa Nakayama

time	[id] title	presenter
16:00	[51] Diagnosing trivializing map	MATSUMOTO, Nobuyuki
16:45	[41] Tensor renormalization group approach to higher-dimensional lattice field theories	Dr AKIYAMA, Shinichiro

## Friday 17 February 2023

### Talk session - Lecture Hall (6F) (09:30 - 10:15)

-Conveners: Issaku Kanamori

time	[id] title	presenter
09:30	[40] Velocity of Sound beyond the High-Density Relativistic Limit from Lattice Simulation of Dense Two-Color QCD	ITOU, Etsuko

### Talk session - Lecture Hall (6F) (10:45 - 12:15)

-Conveners: Issaku Kanamori

time	[id] title	presenter
10:45	[50] PACS10 project	YAMAZAKI, Takeshi
11:30	[43] Stabilised Wilson Fermions in Action - An overview of recent developments	FRANCIS, Anthony

### Talk session - Lecture Hall (6F) (13:30 - 14:15)

-Conveners: Yasumichi Aoki

time	[id] title	presenter
13:30	[54] Recent results in the HAL QCD method	AOKI, Sinya