

German Japanese Workshop 2024



Report of Contributions

Contribution ID: 1

Type: **not specified**

Welcome

Wednesday, September 25, 2024 9:00 AM (15 minutes)

Contribution ID: 2

Type: **not specified**

Vector spectral functions and finite temperature

Wednesday, September 25, 2024 9:15 AM (25 minutes)

Presenter: MEYER, Harvey (Johannes Gutenberg University Mainz)

Session Classification: QCD phase diagram

Contribution ID: 3

Type: **not specified**

Lee-Yang-zero ratio for critical-point searches

Wednesday, September 25, 2024 9:40 AM (25 minutes)

Presenter: KITAZAWA, Masakiyo (Yukawa Institute for Theoretical Physics, Kyoto University)

Session Classification: QCD phase diagram

Contribution ID: 4

Type: **not specified**

Finite-temperature critical point in heavy-quark QCD

Wednesday, September 25, 2024 10:05 AM (25 minutes)

Presenter: KANAYA, Kazuyuki (Tomonaga Center for the History of the Universe, University of Tsukuba)

Session Classification: QCD phase diagram

Contribution ID: 5

Type: **not specified**

Phase structure of finite temperature-density QCD in heavy quark regime by hopping parameter expansion

Wednesday, September 25, 2024 11:10 AM (25 minutes)

Presenter: Dr EJIRI, Shinji (Niigata University)

Session Classification: QCD phase diagram

Contribution ID: 6

Type: **not specified**

Lattice Study of Quarkonia at Finite Temperature

Wednesday, September 25, 2024 11:35 AM (20 minutes)

Presenter: BALA, Dibyendu (Bielefeld University)

Session Classification: QCD phase diagram

Contribution ID: 7

Type: **not specified**

Quark number susceptibility and conserved charge fluctuations of (2+1)-Flavor QCD with Möbius Domain Wall fermions

Wednesday, September 25, 2024 11:55 AM (20 minutes)

Presenter: GOSWAMI, Jishnu (RIKEN Center for Computational Science)

Session Classification: QCD phase diagram

Contribution ID: 8

Type: **not specified**

Finite temperature QCD phase transition with 3 flavors of Möbius domain wall fermions

Wednesday, September 25, 2024 12:15 PM (20 minutes)

Presenter: ZHANG, Yu

Session Classification: QCD phase diagram

Contribution ID: 9

Type: **not specified**

Gauge-equivalent neural networks for multigrid preconditioners

Wednesday, September 25, 2024 2:10 PM (25 minutes)

Presenter: WETTIG, Tilo (University of Regensburg)

Session Classification: Algorithms and Machine learning

Contribution ID: **10**

Type: **not specified**

Sign problem and the Worldvolume HMC method I: basic algorithm

Wednesday, September 25, 2024 2:35 PM (30 minutes)

Presenter: FUKUMA, Masafumi (Kyoto University)

Session Classification: Algorithms and Machine learning

Contribution ID: 11

Type: **not specified**

Sign problem and the Worldvolume HMC method II: various applications

Wednesday, September 25, 2024 3:05 PM (20 minutes)

Presenter: NAMEKAWA, Yusuke (Hiroshima University)

Session Classification: Algorithms and Machine learning

Contribution ID: 12

Type: **not specified**

New developments in numerical studies of quantum time-evolution based on the real-time path integral

Wednesday, September 25, 2024 3:25 PM (30 minutes)

Presenter: Prof. NISHIMURA, Jun (KEK, SOKENDAI)

Session Classification: Algorithms and Machine learning

Contribution ID: 14

Type: **not specified**

Calculation of Kl3 form factor at the physical point on large volume

Wednesday, September 25, 2024 4:50 PM (25 minutes)

Presenter: YAMAZAKI, Takeshi

Session Classification: Physical observables

Contribution ID: 15

Type: **not specified**

Multigrid Solvers in Bridge++

Wednesday, September 25, 2024 4:25 PM (25 minutes)

Presenter: KANAMORI, Issaku (RIKEN)

Session Classification: Algorithms and Machine learning

Contribution ID: **16**

Type: **not specified**

A road to precision B physics

Wednesday, September 25, 2024 5:15 PM (30 minutes)

Presenter: SOMMER, Rainer (DESY)

Session Classification: Physical observables

Contribution ID: 17

Type: **not specified**

Lattice computation of inclusive processes

Thursday, September 26, 2024 9:00 AM (30 minutes)

Presenter: HASHIMOTO, Shoji (KEK)

Session Classification: Conceptual developments

Contribution ID: **18**

Type: **not specified**

Scattering Amplitudes from Euclidean Correlators

Thursday, September 26, 2024 9:30 AM (30 minutes)

Presenter: PATELLA, Agostino (Humboldt-Universität zu Berlin)

Session Classification: Conceptual developments

Contribution ID: 19

Type: **not specified**

Tensor network study of CP(1) model with theta-term

Thursday, September 26, 2024 10:00 AM (25 minutes)

Presenter: TAKEDA, Shinji (Kanazawa University)

Session Classification: Tensor RG

Contribution ID: 20

Type: **not specified**

Tensor renormalization group study of (1+1)-dimensional U(1) gauge-Higgs model at $\theta=\pi$ with Luscher's admissibility condition

Thursday, September 26, 2024 11:00 AM (25 minutes)

Presenter: KURAMASHI, Yoshinobu (University of Tsukuba)

Session Classification: Tensor RG

Contribution ID: 21

Type: **not specified**

A general method of the initial tensor construction for the TRG as the Steiner tree problem

Thursday, September 26, 2024 11:25 AM (25 minutes)

Presenter: NAKAYAMA, Katsumasa (Riken)

Session Classification: Tensor RG

Contribution ID: 22

Type: **not specified**

On the nature of the chiral phase transition

Thursday, September 26, 2024 11:50 AM (25 minutes)

Presenter: PHILIPSEN, Owe

Session Classification: QCD phase diagram

Contribution ID: 23

Type: **not specified**

Complex Langevin Method applied to Lattice QCD at High Density

Thursday, September 26, 2024 1:30 PM (25 minutes)

Presenter: MIURA, Kohtaroh (KEK-IPNS)

Session Classification: QCD phase diagram

Contribution ID: 24

Type: **not specified**

Conserved charge fluctuations and correlations in finite-density QCD

Thursday, September 26, 2024 1:55 PM (25 minutes)

Presenter: KARSCH, Frithjof (Bielefeld University)

Session Classification: QCD phase diagram

Contribution ID: 25

Type: **not specified**

Finite temperature QCD explored with chiral fermions

Thursday, September 26, 2024 2:20 PM (25 minutes)

Presenter: AOKI, Yasumichi (RIKEN)

Session Classification: QCD phase diagram

Contribution ID: 26

Type: **not specified**

QCD thermodynamics at non-zero isospin and baryon density

Thursday, September 26, 2024 2:45 PM (25 minutes)

Presenter: BRANDT, Bastian

Session Classification: QCD phase diagram

Contribution ID: 27

Type: **not specified**

Precision physics in the charm sector

Friday, September 27, 2024 9:00 AM (30 minutes)

Presenter: COLLINS, Sara

Session Classification: Physical observables

Contribution ID: 28

Type: **not specified**

Calculation of pion and kaon charge radii using model-independent method in the PACS10 configuration

Friday, September 27, 2024 9:30 AM (20 minutes)

Presenter: SATO, Kohei (University of Tsukuba)

Session Classification: Physical observables

Contribution ID: 29

Type: **not specified**

Lattice studies of the nucleon structures for the PACS collaboration

Friday, September 27, 2024 9:50 AM (20 minutes)

Presenter: TSUJI, Ryutaro (KEK)

Session Classification: Physical observables

Contribution ID: 31

Type: **not specified**

Parallel tempered meta-dynamics: An algorithm with potential

Friday, September 27, 2024 10:10 AM (25 minutes)

Presenter: HOELBLING, Christian (Wuppertal University)

Session Classification: Algorithms and Machine learning

Contribution ID: 32

Type: **not specified**

Machine learning in lattice gauge theory

Friday, September 27, 2024 11:00 AM (30 minutes)

Presenter: TOMIYA, Akio (TWCU)

Session Classification: Algorithms and Machine learning

Contribution ID: 33

Type: **not specified**

Noise reduction techniques based on machine learning

Friday, September 27, 2024 11:30 AM (25 minutes)

Presenter: WITTIG, Hartmut

Session Classification: Algorithms and Machine learning

Contribution ID: 34

Type: **not specified**

Machine learning estimation on the trace of inverse Dirac operator

Friday, September 27, 2024 11:55 AM (25 minutes)

Primary author: OHNO, Hiroshi (University of Tsukuba)

Co-author: TOMIYA, Akio (TWCU)

Presenter: OHNO, Hiroshi (University of Tsukuba)

Session Classification: Algorithms and Machine learning

Contribution ID: 35

Type: **not specified**

International Lattice Data Grid: Part I

Friday, September 27, 2024 1:30 PM (25 minutes)

Presenter: MATSUFURU, Hideo (High Energy Accelerator Research Organization (KEK))

Session Classification: ILDG

Contribution ID: **36**

Type: **not specified**

International Lattice Data Grid: Part II

Friday, September 27, 2024 1:55 PM (25 minutes)

Presenter: SIMMA, Hubert (DESY)

Session Classification: ILDG

Contribution ID: 37

Type: **not specified**

ILDG: Demo and discussion

Friday, September 27, 2024 2:20 PM (30 minutes)

Presenters: MATSUFURU, Hideo (High Energy Accelerator Research Organization (KEK)); SIMMA, Hubert (DESY)

Session Classification: ILDG