

FoPM International Symposium



Report of Contributions

Contribution ID: 1

Type: **not specified**

Welcome

Monday 17 February 2025 09:30 (5 minutes)

Presenter: Prof. OHKOSHI, Shin-ichi (University of Tokyo)

Session Classification: Plenary Session 1

Contribution ID: 2

Type: **not specified**

Logistics

Monday 17 February 2025 09:35 (5 minutes)

Presenter: Dr HARRIS, Kate (University of Tokyo)

Session Classification: Plenary Session 1

Contribution ID: 3

Type: **not specified**

FoPM

Monday 17 February 2025 09:40 (20 minutes)

Presenter: Prof. MURAYAMA, Hitoshi (Kavli IPMU)

Session Classification: Plenary Session 1

Contribution ID: 4

Type: **not specified**

Discrete Painlevé Equations and Quantum Minimal Surfaces

Monday 17 February 2025 14:00 (30 minutes)

Presenter: Prof. HONE, Andy (University of Kent)

Session Classification: Plenary Session 2

Contribution ID: 5

Type: **not specified**

Illuminating Earth's Dynamic Deep Interior: Multi-scale structures and their significance

Monday 17 February 2025 14:30 (30 minutes)

Presenter: Prof. GARNERO, Edward (Arizona State University)

Session Classification: Plenary Session 2

Contribution ID: 6

Type: **not specified**

From PhD to MEXT: My Personal Career Journey

Monday 17 February 2025 15:00 (30 minutes)

Presenter: Dr MURAMATSU, Tetsuyuki (MEXT)

Session Classification: Career Seminar 1

Contribution ID: 7

Type: **not specified**

A Rakugo Performer's Take on Imagination: What is the purpose of the "makura"? (落語家が語る《想像力》～マクラは何のためにあるのか)

Tuesday 18 February 2025 09:00 (30 minutes)

Presenter: Mr KATSURA, Fukumaru

Session Classification: Plenary Session 3

Contribution ID: 8

Type: **not specified**

Multiscale Organization of Neuronal Activity Unifies Scale-Dependent Theories of Brain Function

Tuesday 18 February 2025 09:30 (30 minutes)

Presenter: Prof. SHINE, Mac (The University of Sydney)

Session Classification: Plenary Session 3

Contribution ID: 9

Type: **not specified**

Gender Balance in Japanese Higher Education

Tuesday 18 February 2025 10:00 (30 minutes)

Presenter: Prof. KAWANO, Ginko (Kyushu University)

Session Classification: Plenary Session 3

Contribution ID: **10**

Type: **not specified**

Quantum Theory and Mathematics

Tuesday 18 February 2025 14:00 (30 minutes)

Presenter: Prof. SCHWEIGERT, Christoph (University of Hamburg)

Session Classification: Plenary Session 4

Contribution ID: 11

Type: **not specified**

Optical Quantum Computers with Quantum Teleportation

Tuesday 18 February 2025 14:30 (30 minutes)

Presenter: Prof. FURUSAWA, Akira (School of Engineering, UTokyo)

Session Classification: Plenary Session 4

Contribution ID: 12

Type: **not specified**

Scalable Networking of Neutral-Atom Quantum Computers Using Nanofiber Cavities

Wednesday 19 February 2025 09:30 (30 minutes)

Presenter: Prof. GOBAN, Akihisa (Nano QT (Nanofiber Quantum Technologies))

Session Classification: Plenary Session 5

Contribution ID: 13

Type: **not specified**

My 30-year Quest to Solve the Mysteries of Supermassive Black Holes

Wednesday 19 February 2025 10:00 (30 minutes)

Presenter: Prof. HO, Luis C. (Kavli Institute for Astronomy and Astrophysics, Peking University)

Session Classification: Plenary Session 5

Contribution ID: 14

Type: **not specified**

Scalable, Ultrafast Quantum Information Processors in Nanophotonics

Wednesday 19 February 2025 14:00 (30 minutes)

Presenter: Prof. NEHRA, Rajveer (University of Massachusetts Amherst)

Session Classification: Plenary Session 6

Contribution ID: 15

Type: **not specified**

Multifunctional Luminescent Materials Constructed from Molecules

Wednesday 19 February 2025 14:30 (30 minutes)

Presenter: Prof. CHORAZY, Szymon (Jagiellonian University)

Session Classification: Plenary Session 6

Contribution ID: 16

Type: **not specified**

Research Life at UC Berkeley: Sensing the dynamic universe with rockets and satellites

Wednesday 19 February 2025 16:00 (15 minutes)

zoom

Presenter: Dr NAGASAWA, Shunsaku (Space Sciences Laboratory, UC Berkeley)

Session Classification: Career Seminar

Contribution ID: 17

Type: **not specified**

Researcher in a Chemical Company

Wednesday 19 February 2025 16:15 (15 minutes)

Presenter: Dr TANAKA, Hiroaki (Research Center for Computational Science and Informatics, Resonac)

Session Classification: Career Seminar

Contribution ID: **18**

Type: **not specified**

Machine Learning the Universe: Testing cosmological theories with galaxy surveys

Monday 17 February 2025 10:00 (30 minutes)

Presenter: Prof. JAIN, Bhuvnesh (University of Pennsylvania)

Session Classification: Plenary Session 1

Contribution ID: 19

Type: **not specified**

My Research Career in Japan and Germany

Tuesday 18 February 2025 15:00 (30 minutes)

Presenter: Dr MORIMOTO, Yuya (RIKEN/School of Engineering, UTokyo)

Session Classification: Career Seminar 2

Contribution ID: 20

Type: **not specified**

Fujitsu Laboratories, Corporate Research, and the FoPM Program

Wednesday 19 February 2025 15:00 (30 minutes)

Presenter: Dr FUKUOKA, Takeru (Fujitsu)

Session Classification: Career Seminar

Contribution ID: 22

Type: **not specified**

Utilizing backconversion for highly efficient and stable wavelength conversion from Yb:KGW femtosecond laser

Presenter: AIKYO, Kota

Session Classification: Poster Session

Contribution ID: 23

Type: **not specified**

Summary / Closing

Wednesday 19 February 2025 17:30 (30 minutes)

Presenter: Prof. MURAYAMA, Hitoshi (UC Berkeley / Kavli IPMU, UTokyo)

Session Classification: Closing Session

Contribution ID: 24

Type: **not specified**

Optical response of edge modes in time-reversal symmetric topological superconductors

Presenter: KOBAYASHI, Hirokazu

Session Classification: Parallel Sessions 1

Contribution ID: 25

Type: **not specified**

Optical response of edge modes in time-reversal symmetric topological superconductors

Monday 17 February 2025 11:00 (15 minutes)

Presenter: KOBAYASHI, Hirokazu

Session Classification: Parallel Sessions 1

Contribution ID: 26

Type: **not specified**

Transport theory of an electron-phonon system: Crossover from phonon drag to phonon-mediated electron hydrodynamics

Monday 17 February 2025 11:15 (15 minutes)

Presenter: TAKAHASHI, Keigo

Session Classification: Parallel Sessions 1

Contribution ID: 27

Type: **not specified**

Probing nonlinear spin-wave dynamics using diamond quantum sensors

Monday 17 February 2025 11:30 (15 minutes)

Presenter: OGAWA, Kensuke

Session Classification: Parallel Sessions 1

Contribution ID: 28

Type: **not specified**

Seeds of Massive Stars Revealed by Radio Observations

Monday 17 February 2025 11:45 (15 minutes)

Presenter: MORII, Kaho

Session Classification: Parallel Sessions 1

Contribution ID: 29

Type: **not specified**

Toward label-free observation of single proteins

Monday 17 February 2025 12:00 (15 minutes)

Presenter: SAWA, Masato

Session Classification: Parallel Sessions 1

Contribution ID: **30**

Type: **not specified**

TBA

Monday 17 February 2025 12:15 (15 minutes)

Presenter: LUO, Yingdong

Session Classification: Parallel Sessions 1

Contribution ID: **31**

Type: **not specified**

Hofstadter butterfly of topological phases

Monday 17 February 2025 11:00 (15 minutes)

Presenter: SUDO, Hiroyuki

Session Classification: Parallel Sessions 1

Contribution ID: 32

Type: **not specified**

Quasiperiodicity and superconductivity

Monday 17 February 2025 11:15 (15 minutes)

Presenter: YOSHII, Mao

Session Classification: Parallel Sessions 1

Contribution ID: 33

Type: **not specified**

GLTCAM: Ultra-wideband and easy-to-array 180° Hybrid design for mm/submm continuum imaging

Monday 17 February 2025 11:30 (15 minutes)

Presenter: INOUE, Shuhei

Session Classification: Parallel Sessions 1

Contribution ID: 34

Type: **not specified**

Fermionic CFTs from error-correcting codes and orbifold theories

Monday 17 February 2025 11:45 (15 minutes)

Presenter: YAHAGI, Shinichiro

Session Classification: Parallel Sessions 1

Contribution ID: 35

Type: **not specified**

Observation of chiral domain walls in an octupole-ordered antiferromagnet

Monday 17 February 2025 12:00 (15 minutes)

Presenter: TSUKAMOTO, Moeta

Session Classification: Parallel Sessions 1

Contribution ID: 36

Type: **not specified**

Games with backtracking options for (quantitative) unprovability results

Monday 17 February 2025 12:15 (15 minutes)

Presenter: KEN, Eitetsu

Session Classification: Parallel Sessions 1

Contribution ID: 37

Type: **not specified**

Waveform inversion for the 3D S-wave velocity structure in D" beneath the Hawaiian Islands

Monday 17 February 2025 11:00 (15 minutes)

Presenter: OTSURU, Keisuke

Session Classification: Parallel Sessions 1

Contribution ID: **38**

Type: **not specified**

Extension of optimal transport to chemical reaction network

Monday 17 February 2025 11:15 (15 minutes)

Presenter: NAGAYAMA, Ryuna

Session Classification: Parallel Sessions 1

Contribution ID: **39**

Type: **not specified**

TBA

Monday 17 February 2025 11:30 (15 minutes)

Presenter: FUJIWARA, Kosuke

Session Classification: Parallel Sessions 1

Contribution ID: 40

Type: **not specified**

Dynamic nuclear polarization with boron vacancy in hexagonal boron nitride

Monday 17 February 2025 11:45 (15 minutes)

Presenter: NAKAMURA, Yuki

Session Classification: Parallel Sessions 1

Contribution ID: 41

Type: **not specified**

Building a bridge between two approaches to studying the space of smooth embeddings

Monday 17 February 2025 12:00 (15 minutes)

Presenter: YOSHIOKA, Leo

Session Classification: Parallel Sessions 1

Contribution ID: 42

Type: **not specified**

Neutrino mass ordering determination in Super-Kamiokande-Gd

Monday 17 February 2025 12:15 (15 minutes)

Presenter: MIKI, Shintaro

Session Classification: Parallel Sessions 1

Contribution ID: 43

Type: **not specified**

How hot cools faster than cold: Universal microscopic theory of Mpemba effects

Monday 17 February 2025 11:00 (15 minutes)

Presenter: OHGA, Naruo

Session Classification: Parallel Sessions 1

Contribution ID: 44

Type: **not specified**

TBA

Monday 17 February 2025 11:15 (15 minutes)

Presenter: ARITA, Shinichi

Session Classification: Parallel Sessions 1

Contribution ID: 45

Type: **not specified**

Reducing qubit usage in entanglement distillation protocols for distributed quantum computation

Monday 17 February 2025 11:30 (15 minutes)

Presenter: MATSUI, Kosuke

Session Classification: Parallel Sessions 1

Contribution ID: 46

Type: **not specified**

Fock State Generation with Aperiodic-Poled K₂TiOPO₄ Waveguide

Monday 17 February 2025 11:45 (15 minutes)

Presenter: NOMURA, Takefumi

Session Classification: Parallel Sessions 1

Contribution ID: 47

Type: **not specified**

Structural Fluctuation in Phase Transition of Crystalline Materials

Monday 17 February 2025 12:00 (15 minutes)

Presenter: SAKAKIBARA, Masaya

Session Classification: Parallel Sessions 1

Contribution ID: 48

Type: **not specified**

Spin Nernst and thermal Hall effects of topological triplons on maple-leaf/star lattice antiferromagnets

Monday 17 February 2025 12:15 (15 minutes)

Presenter: ESAKI, Nanse

Session Classification: Parallel Sessions 1

Contribution ID: 49

Type: **not specified**

Quantum communication between fixed-frequency superconducting qubits using an itinerant microwave photon

Monday 17 February 2025 16:00 (15 minutes)

Presenter: MIYAMURA, Takeaki

Session Classification: Parallel Session 2

Contribution ID: 50

Type: **not specified**

Theory of open quantum many-body systems

Monday 17 February 2025 16:15 (15 minutes)

Presenter: SHIRAISHI, Koki

Session Classification: Parallel Session 2

Contribution ID: 51

Type: **not specified**

Asymptotic property of point process regression

Monday 17 February 2025 16:30 (15 minutes)

Presenter: GYOTOKU, Yoshihiro

Session Classification: Parallel Session 2

Contribution ID: 52

Type: **not specified**

Strong CP problem

Monday 17 February 2025 16:45 (15 minutes)

Presenter: OKABE, Risshin

Session Classification: Parallel Session 2

Contribution ID: 53

Type: **not specified**

Quantitative elucidation of Akt isoform-specific effect on cellular morphology change using optogenetics and a mathematical model

Monday 17 February 2025 17:00 (15 minutes)

Presenter: SEKINE, Yuka

Session Classification: Parallel Session 2

Contribution ID: 54

Type: **not specified**

Monte Carlo methods for quantum lattice models (tentative)

Monday 17 February 2025 16:00 (15 minutes)

Presenter: SHIRATANI, Sora

Session Classification: Parallel Session 2

Contribution ID: 55

Type: **not specified**

Ultrafast all-optical universal squeezer of single-photon states

Monday 17 February 2025 16:15 (15 minutes)

Presenter: SONOYAMA, Tatsuki

Session Classification: Parallel Session 2

Contribution ID: 56

Type: **not specified**

Mining for Protoclusters at $z \sim 4$ from Photometric Data Sets with Deep Learning

Monday 17 February 2025 16:30 (15 minutes)

Presenter: TAKEDA, Yoshihiro

Session Classification: Parallel Session 2

Contribution ID: 57

Type: **not specified**

Investigation of Taxol distribution and toxicity in Drosophila L3 larvae

Monday 17 February 2025 16:45 (15 minutes)

Presenter: KOBAYASHI, Tsubasa

Session Classification: Parallel Session 2

Contribution ID: 58

Type: **not specified**

Superconducting Vortex Nucleation Induced by Self-Field of Current

Monday 17 February 2025 17:00 (15 minutes)

Presenter: NISHIMURA, Shunsuke

Session Classification: Parallel Session 2

Contribution ID: 59

Type: **not specified**

Observation on Galaxy Protoclusters Hints AGN feedback on IGM Scale

Monday 17 February 2025 16:00 (15 minutes)

Presenter: DONG, Chenze

Session Classification: Parallel Session 2

Contribution ID: **60**

Type: **not specified**

Spontaneous leptogenesis

Monday 17 February 2025 16:15 (15 minutes)

Presenter: TAKAHASHI, Hiroki

Session Classification: Parallel Session 2

Contribution ID: **61**

Type: **not specified**

Programmable control of temporal waveform of fragile optical quantum states

Monday 17 February 2025 16:30 (15 minutes)

Presenter: TOMODA, Hiroko

Session Classification: Parallel Session 2

Contribution ID: **62**

Type: **not specified**

Cellular response to mechanical stimulation

Monday 17 February 2025 16:45 (15 minutes)

Presenter: MUKAI, Tomoya

Session Classification: Parallel Session 2

Contribution ID: 63

Type: **not specified**

A possible simple proof of the Bott periodicity theorem

Monday 17 February 2025 17:00 (15 minutes)

Presenter: NATORI, Masaki

Session Classification: Parallel Session 2

Contribution ID: 64

Type: **not specified**

Mystery of arithmetic geometry and p-adic differential equations

Monday 17 February 2025 16:00 (15 minutes)

Presenter: WANG, Peiduo

Session Classification: Parallel Session 2

Contribution ID: 65

Type: **not specified**

Nuclear reaction in muonic atoms

Monday 17 February 2025 16:15 (15 minutes)

Presenter: MIZUNO, Rurie

Session Classification: Parallel Session 2

Contribution ID: 66

Type: **not specified**

Subaru PFS: Search for intermediate-mass black holes

Monday 17 February 2025 16:30 (15 minutes)

Presenter: HAYASHI, Kota

Session Classification: Parallel Session 2

Contribution ID: 67

Type: **not specified**

Proposal of unitary-transformed projective squeezing

Monday 17 February 2025 16:45 (15 minutes)

Presenter: ANAI, Keitaro

Session Classification: Parallel Session 2

Contribution ID: **68**

Type: **not specified**

Inferring mantle flow beneath the Pacific Ocean from seismic anisotropy

Monday 17 February 2025 17:00 (15 minutes)

Presenter: FUNAHASHI, Ikuchi

Session Classification: Parallel Session 2

Contribution ID: 69

Type: **not specified**

Nonequilibrium hysteretic phase transitions in periodically light-driven superconductors

Monday 17 February 2025 17:15 (15 minutes)

Presenter: ZHANG, Huanyu

Session Classification: Parallel Session 2

Contribution ID: 70

Type: **not specified**

Solitons and scars in 1d interacting chiral fermion systems as qKdV equation

Tuesday 18 February 2025 11:00 (15 minutes)

Presenter: KITAHAMA, Shunta

Session Classification: Parallel Session 3

Contribution ID: 71

Type: **not specified**

Tasting proton decay

Tuesday 18 February 2025 11:15 (15 minutes)

Presenter: CHITOSE, Akifumi

Session Classification: Parallel Session 3

Contribution ID: 72

Type: **not specified**

Orbital polarization induced by chiral phonon excitations

Tuesday 18 February 2025 11:30 (15 minutes)

Presenter: OMURA, Satoshi

Session Classification: Parallel Session 3

Contribution ID: 73

Type: **not specified**

Image restoration experiment for infrared data of Venusian clouds

Tuesday 18 February 2025 11:45 (15 minutes)

Presenter: GUO, Zhuan

Session Classification: Parallel Session 3

Contribution ID: 74

Type: **not specified**

Equivariant Poisson structures and module categories over representation categories

Tuesday 18 February 2025 12:00 (15 minutes)

Presenter: HOSHINO, Mao

Session Classification: Parallel Session 3

Contribution ID: 75

Type: **not specified**

Uniqueness of the non-equilibrium steady state in open quantum many-body systems

Tuesday 18 February 2025 12:15 (15 minutes)

Presenter: YOSHIDA, Hironobu

Session Classification: Parallel Session 3

Contribution ID: 76

Type: **not specified**

Deformation of heat kernels and Brownian motion from the viewpoint of Ben Saïd-Kobayashi-Ørsted (k,a)-generalized Laguerre semigroup theory

Tuesday 18 February 2025 11:00 (15 minutes)

Presenter: AOYAMA, Temma

Session Classification: Parallel Session 3

Contribution ID: 77

Type: **not specified**

Tensor networks for quantum machine learning

Tuesday 18 February 2025 11:15 (15 minutes)

Presenter: MUROTA, Keisuke

Session Classification: Parallel Session 3

Contribution ID: 78

Type: **not specified**

Bidirectional quantitative scattering microscopy

Tuesday 18 February 2025 11:30 (15 minutes)

Presenter: HORIE, Kohki

Session Classification: Parallel Session 3

Contribution ID: 79

Type: **not specified**

Numerical simulation of magnetic monopoles in topological magnets

Tuesday 18 February 2025 11:45 (15 minutes)

Presenter: YAMADA, Midori

Session Classification: Parallel Session 3

Contribution ID: **80**

Type: **not specified**

Universal structure of nonequilibrium thermodynamics

Tuesday 18 February 2025 12:00 (15 minutes)

Presenter: YOSHIMURA, Kohei

Session Classification: Parallel Session 3

Contribution ID: **81**

Type: **not specified**

Demonstration of selective quantum teleportation toward switching-free quantum computation

Tuesday 18 February 2025 11:00 (15 minutes)

Presenter: KAWASAKI, Akito

Session Classification: Parallel Session 3

Contribution ID: 82

Type: **not specified**

Discovery of a massive bulge-dominated galaxy in the early Universe

Tuesday 18 February 2025 11:15 (15 minutes)

Presenter: TSUJITA, Akiyoshi

Session Classification: Parallel Session 3

Contribution ID: 83

Type: **not specified**

Endomorphisms of von Neumann algebras and fusion categories

Tuesday 18 February 2025 11:30 (15 minutes)

Presenter: KAWASUMI, Kotaro

Session Classification: Parallel Session 3

Contribution ID: **84**

Type: **not specified**

Probing neural activity driving animal movements

Tuesday 18 February 2025 11:45 (15 minutes)

Presenter: DATE, Takahisa

Session Classification: Parallel Session 3

Contribution ID: 85

Type: **not specified**

Investigating stellar element production in laboratory

Tuesday 18 February 2025 12:00 (15 minutes)

Presenter: YEUNG, Tik Tsun

Session Classification: Parallel Session 3

Contribution ID: **86**

Type: **not specified**

TBA

Tuesday 18 February 2025 12:15 (15 minutes)

Presenter: AKITA, Jun

Session Classification: Parallel Session 3

Contribution ID: 87

Type: **not specified**

Cosmic Birefringence : a hint of new physics

Tuesday 18 February 2025 11:00 (15 minutes)

Presenter: NAOKAWA, Fumihiro

Session Classification: Parallel Session 3

Contribution ID: **88**

Type: **not specified**

Narrow-line-mediated Sisyphus cooling in the 3P2 metastable state of strontium

Tuesday 18 February 2025 11:15 (15 minutes)

Presenter: TAKEUCHI, Ryoto

Session Classification: Parallel Session 3

Contribution ID: 89

Type: **not specified**

Oligarchic growth of protoplanets in an expanding planetesimal ring

Tuesday 18 February 2025 11:30 (15 minutes)

Presenter: KAMBARA, Yuki

Session Classification: Parallel Session 3

Contribution ID: 90

Type: **not specified**

Comprehensive Understanding of Cosmic Reionization History with JWST and Subaru

Tuesday 18 February 2025 11:45 (15 minutes)

Presenter: UMEDA, Hiroya

Session Classification: Parallel Session 3

Contribution ID: **91**

Type: **not specified**

Search for Ultralight Axion Dark Matter with Optical Ring Cavity

Tuesday 18 February 2025 12:00 (15 minutes)

Presenter: FUJIMOTO, Hiroki

Session Classification: Parallel Session 3

Contribution ID: 92

Type: **not specified**

Log-rank test with nonparametric matching

Tuesday 18 February 2025 12:15 (15 minutes)

Presenter: BABA, Tomoya

Session Classification: Parallel Session 3

Contribution ID: 93

Type: **not specified**

Theory of chirality-induced spin Seebeck effect

Wednesday 19 February 2025 11:00 (15 minutes)

Presenter: NISHIMURA, Naoki

Session Classification: Parallel Sessions 4

Contribution ID: 94

Type: **not specified**

Polarization Signal Reduction Associated with Magnetic Reconnection Events in the Solar Chromosphere

Wednesday 19 February 2025 11:15 (15 minutes)

Presenter: ZHOU, Xinyu

Session Classification: Parallel Sessions 4

Contribution ID: 95

Type: **not specified**

Spectral truncations, approximations in noncommutative geometry and some applications to machine learning

Wednesday 19 February 2025 11:30 (15 minutes)

Presenter: HAFID, Ayoub

Session Classification: Parallel Sessions 4

Contribution ID: 96

Type: **not specified**

Terahertz third harmonic generation in the iron-based superconductor FeSe

Wednesday 19 February 2025 11:45 (15 minutes)

Presenter: MATSUMOTO, Haruki

Session Classification: Parallel Sessions 4

Contribution ID: 97

Type: **not specified**

TBA

Wednesday 19 February 2025 12:15 (15 minutes)

Presenter: IDE, Ryuhoh

Session Classification: Parallel Sessions 4

Contribution ID: 98

Type: **not specified**

Automorphism groups of specific Calabi-Yau manifolds

Wednesday 19 February 2025 12:00 (15 minutes)

Presenter: SAKAMOTO, Renji

Session Classification: Parallel Sessions 4

Contribution ID: 99

Type: **not specified**

Search for sterile neutrino at the Belle II experiment

Wednesday 19 February 2025 11:00 (15 minutes)

Presenter: SHIMASAKI, Tomoyuki

Session Classification: Parallel Sessions 4

Contribution ID: **100**

Type: **not specified**

Moonshine Phenomena and Symmetries of lattice CFTs

Wednesday 19 February 2025 12:00 (15 minutes)

Presenter: OKADA, Masaki

Session Classification: Parallel Sessions 4

Contribution ID: **101**

Type: **not specified**

Generative Diffusion Model with Inverse Renormalization Group Flows

Wednesday 19 February 2025 11:15 (15 minutes)

Presenter: MASUKI, Kanta

Session Classification: Parallel Sessions 4

Contribution ID: **102**

Type: **not specified**

Optical Quantum States Generation using a High-Speed Photon-Number-Resolving Detector

Wednesday 19 February 2025 11:30 (15 minutes)

Presenter: TAKAHASHI, Kazuma

Session Classification: Parallel Sessions 4

Contribution ID: **103**

Type: **not specified**

Ultra-broadband vibrational spectroscopy of buried interfaces

Wednesday 19 February 2025 11:45 (15 minutes)

Presenter: KAMEYAMA, Risako

Session Classification: Parallel Sessions 4

Contribution ID: **104**

Type: **not specified**

Observation of photocatalytic reaction by time-resolved in situ soft x-ray absorption spectroscopy

Wednesday 19 February 2025 11:00 (15 minutes)

Presenter: SHIBUYA, Kohei

Session Classification: Parallel Sessions 4

Contribution ID: **105**

Type: **not specified**

Binaries of White dwarfs and Main Sequence Stars in few-days orbit discovered by TESS and Gaia

Wednesday 19 February 2025 11:15 (15 minutes)

Presenter: SHIRAISHI, Yuta

Session Classification: Parallel Sessions 4

Contribution ID: **106**

Type: **not specified**

Observation of magnetism in 2D vdW crystals

Wednesday 19 February 2025 11:30 (15 minutes)

Presenter: GU, Hao

Session Classification: Parallel Sessions 4

Contribution ID: **107**

Type: **not specified**

Population inference of binary black holes with effective spin parameters

Wednesday 19 February 2025 11:45 (15 minutes)

Presenter: IWAYA, Masaki

Session Classification: Parallel Sessions 4

Contribution ID: **108**

Type: **not specified**

All-Gaussian Quantum Neural Network

Wednesday 19 February 2025 12:00 (15 minutes)

Presenter: NAGAYOSHI, Hironari

Session Classification: Parallel Sessions 4

Contribution ID: **109**

Type: **not specified**

Continuous variable quantum key distribution

Wednesday 19 February 2025 11:00 (15 minutes)

Presenter: YAMANO, Shinichiro

Session Classification: Parallel Sessions 4

Contribution ID: 110

Type: **not specified**

Measuring Gravitational Lensing Three-Point Statistics Unaffected by Observational Region Shape

Wednesday 19 February 2025 11:15 (15 minutes)

Presenter: TANIGUCHI, Takanori

Session Classification: Parallel Sessions 4

Contribution ID: 111

Type: **not specified**

Study of magnetization-induced second harmonic generation

Wednesday 19 February 2025 11:30 (15 minutes)

Presenter: SUMI, Toshihide

Session Classification: Parallel Sessions 4

Contribution ID: 112

Type: **not specified**

Preliminary results of high-contrast observations of cool stars from the Subaru Intensive Survey on accelerating stars

Wednesday 19 February 2025 11:45 (15 minutes)

Presenter: GU, Ziyang

Session Classification: Parallel Sessions 4

Contribution ID: 113

Type: **not specified**

Research and development towards an axion search experiment using quantum sensing of magnons

Wednesday 19 February 2025 12:00 (15 minutes)

Presenter: SINGH SHRESTHA, Yaman

Session Classification: Parallel Sessions 4

Contribution ID: **114**

Type: **not specified**

TBA

Wednesday 19 February 2025 12:15 (15 minutes)

Presenter: HONG, Muzi

Session Classification: Parallel Sessions 4

Contribution ID: 115

Type: **not specified**

1. Utilizing backconversion for highly efficient and stable wavelength conversion from Yb:KGW femtosecond laser

Tuesday 18 February 2025 16:00 (1 minute)

Presenter: AIKYO, Kota

Session Classification: Poster Session

Contribution ID: 116

Type: **not specified**

2. Photoelectron spectroscopy of thiolate-protected gold cluster anions formed by matrix-assisted laser desorption/ionization

Tuesday 18 February 2025 16:01 (1 minute)

Presenter: AKAZAWA, Koumei

Session Classification: Poster Session

Contribution ID: 117

Type: **not specified**

3. Revisiting the Role of Zero Modes around Solitons

Tuesday 18 February 2025 16:02 (1 minute)

Presenter: AOKI, Takafumi

Session Classification: Poster Session

Contribution ID: **118**

Type: **not specified**

4. TBA

Tuesday 18 February 2025 16:03 (1 minute)

Presenter: AONASHI, Tatsuya

Session Classification: Poster Session

Contribution ID: 119

Type: **not specified**

5. Direct observation of valence electron density in intermetallic compounds

Tuesday 18 February 2025 16:04 (1 minute)

Presenter: AOYAGI, Shungo

Session Classification: Poster Session

Contribution ID: 120

Type: **not specified**

6. CNN method for the charged-current electron neutrino cross-sections measurement at T2K near detector

Tuesday 18 February 2025 16:05 (1 minute)

Presenter: ARAI, Tomochika

Session Classification: Poster Session

Contribution ID: 121

Type: **not specified**

7. Can supermassive stars be a Nitrogen origin of GN-z11?

Tuesday 18 February 2025 16:06 (1 minute)

Presenter: EBIHARA, Sho

Session Classification: Poster Session

Contribution ID: 122

Type: **not specified**

8. Revealing the Energy Distribution of shocks in RCW 86 NE with XRISM and NuSTAR

Tuesday 18 February 2025 16:07 (1 minute)

Presenter: FUJIMOTO, Gen

Session Classification: Poster Session

Contribution ID: 123

Type: **not specified**

9. Quantum Breakdown Model: the Exact Solution and Dynamics

Tuesday 18 February 2025 16:08 (1 minute)

Presenter: GUAN, Xinye

Session Classification: Poster Session

Contribution ID: 124

Type: **not specified**

10. Discrete geometry of 3-dimensional Spin Manifold

Tuesday 18 February 2025 16:09 (1 minute)

Presenter: HARADA, Akira

Session Classification: Poster Session

Contribution ID: 125

Type: **not specified**

11. Universal Upper Bound on Work Extractable from Quantum Many-Body Systems

Tuesday 18 February 2025 16:10 (1 minute)

Presenter: HOKKYO, Akihiro

Session Classification: Poster Session

Contribution ID: **126**

Type: **not specified**

12. TBA

Tuesday 18 February 2025 16:11 (1 minute)

Presenter: HONDA, Kensuke

Session Classification: Poster Session

Contribution ID: 127

Type: **not specified**

13. Entanglement swapping in critical quantum spin chains

Tuesday 18 February 2025 16:12 (1 minute)

Presenter: HOSHINO, Masahiro

Session Classification: Poster Session

Contribution ID: 128

Type: **not specified**

14. A categorical approach to Gödel's incompleteness via arithmetic universes

Tuesday 18 February 2025 16:13 (1 minute)

Presenter: IKEDA, Yuto

Session Classification: Poster Session

Contribution ID: 129

Type: **not specified**

15. Research on how to implement repeat-until-success nonlinear optical quantum gate circuits

Tuesday 18 February 2025 16:14 (1 minute)

Presenter: IKEHARA, Shion

Session Classification: Poster Session

Contribution ID: 130

Type: **not specified**

16. Parallel Gradient Estimation of Parameterized Quantum Circuit

Tuesday 18 February 2025 16:15 (1 minute)

Presenter: IMAMURA, Soichiro

Session Classification: Poster Session

Contribution ID: 131

Type: **not specified**

17. Frequency collision analysis of all-microwave two-qubit gate

Tuesday 18 February 2025 16:16 (1 minute)

Presenter: INOUE, Shinichi

Session Classification: Poster Session

Contribution ID: 132

Type: **not specified**

18. Mechanism of nuclear condensate miscibility

Tuesday 18 February 2025 16:17 (1 minute)

Presenter: INOUE, Shoma

Session Classification: Poster Session

Contribution ID: 133

Type: **not specified**

19. Quantum i.i.d. Steady States in Open Quantum Many-Body Systems

Tuesday 18 February 2025 16:18 (1 minute)

Presenter: ISHII, Takanao

Session Classification: Poster Session

Contribution ID: 134

Type: **not specified**

20. Insights into Confinement in Supersymmetric Gauge Theories

Tuesday 18 February 2025 16:19 (1 minute)

Presenter: ISHIKAWA, Riku

Session Classification: Poster Session

Contribution ID: 135

Type: **not specified**

21. Analysis of the nonlinear transport prooperties on the one-dimensional Hubbard model

Tuesday 18 February 2025 16:20 (1 minute)

Presenter: IWASAKI, Tetsuya

Session Classification: Poster Session

Contribution ID: 136

Type: **not specified**

22. Tracing Cosmic Reionization: Ly α Emission from Early Galaxies Observed with JWST

Tuesday 18 February 2025 16:21 (1 minute)

Presenter: KAGEURA, Yuta

Session Classification: Poster Session

Contribution ID: 137

Type: **not specified**

23. Angular Momentum Transfer from a Vortex Beam to a Superconductor

Tuesday 18 February 2025 16:22 (1 minute)

Presenter: KANG, Daemo

Session Classification: Poster Session

Contribution ID: 138

Type: **not specified**

24. Graphical representation of a stationary distribution and static responses in population dynamics

Tuesday 18 February 2025 16:23 (1 minute)

Presenter: KATAYAMA, Koya

Session Classification: Poster Session

Contribution ID: 139

Type: **not specified**

25. Indirect search for dark matter using radio observations

Tuesday 18 February 2025 16:24 (1 minute)

Presenter: KAWAI, Chikara

Session Classification: Poster Session

Contribution ID: 140

Type: **not specified**

26. Jet propagation in aspherical ejecta from neutron star-black hole merger

Tuesday 18 February 2025 16:25 (1 minute)

Presenter: KIDO, Daisaburo

Session Classification: Poster Session

Contribution ID: 141

Type: **not specified**

27. Skeletaly fused reversible Michael acceptor for the virus desease treatment

Tuesday 18 February 2025 16:26 (1 minute)

Presenter: KOBAYASHI, YUHI

Session Classification: Poster Session

Contribution ID: 142

Type: **not specified**

28. TAO 6.5m telescope high-speed observation unit for unveiling Fast Radio Bursts origins

Tuesday 18 February 2025 16:27 (1 minute)

Presenter: KODAMA, Emon

Session Classification: Poster Session

Contribution ID: 143

Type: **not specified**

29. A constructive proof of the general Nullstellensatz

Tuesday 18 February 2025 16:28 (1 minute)

Presenter: KUROKI, Ryota

Session Classification: Poster Session

Contribution ID: 144

Type: **not specified**

30. Simulation of Oxygen Green Aurora Emission on Venus

Tuesday 18 February 2025 16:29 (1 minute)

Presenter: LU, Pucheng

Session Classification: Poster Session

Contribution ID: 145

Type: **not specified**

Simulation of Oxygen Green Aurora Emission on Venus

Presenter: LU, Pucheng

Session Classification: Poster Session

Contribution ID: 146

Type: **not specified**

31. Simulation study of ultra-slow muon generation for the J-PARC Muon $g-2$ /EDM Experiment

Tuesday 18 February 2025 16:30 (1 minute)

Presenter: LYU, Meng

Session Classification: Poster Session

Contribution ID: 147

Type: **not specified**

32. Decoherence suppression of optical non-Gaussian quantum states using a loop-based optical circuit

Tuesday 18 February 2025 16:31 (1 minute)

Presenter: MACHINAGA, Akihiro

Session Classification: Poster Session

Contribution ID: 148

Type: **not specified**

33. Rigorous lower bound on dynamical critical exponents of critical frustration-free systems

Tuesday 18 February 2025 16:32 (1 minute)

Presenter: MASAOKA, Rintaro

Session Classification: Poster Session

Contribution ID: 149

Type: **not specified**

34. Tensor cross interpolation approach for quantum impurity problems based on the weak-coupling expansion

Tuesday 18 February 2025 16:33 (1 minute)

Presenter: MATSUURA, Shuta

Session Classification: Poster Session

Contribution ID: **150**

Type: **not specified**

35. TBA

Tuesday 18 February 2025 16:34 (1 minute)

Presenter: MIKI, Yuta

Session Classification: Poster Session

Contribution ID: 151

Type: **not specified**

36. A model for periodic patterning of tracheal cartilage rings

Tuesday 18 February 2025 16:35 (1 minute)

Presenter: MORI, Masahito

Session Classification: Poster Session

Contribution ID: 152

Type: **not specified**

37. Electronic structure of dimers of gold nanoclusters probed by gas-phase photoelectron spectroscopy

Tuesday 18 February 2025 16:36 (1 minute)

Presenter: NAKASHIMA, Yosuke

Session Classification: Poster Session

Contribution ID: 153

Type: **not specified**

38. Classification of theories and the notion of independence

Tuesday 18 February 2025 16:37 (1 minute)

Presenter: NAKAURA, Koitaro

Session Classification: Poster Session

Contribution ID: 154

Type: **not specified**

39. Undulator radiation interferometry for electron beam energy measurement

Tuesday 18 February 2025 16:38 (1 minute)

Presenter: NISHI, Koutarou

Session Classification: Poster Session

Contribution ID: 155

Type: **not specified**

40. Selective synthesis of aromatic hydrocarbon macrocycles with partially functionalized structures

Tuesday 18 February 2025 16:39 (1 minute)

Presenter: NISHINA, Hideaki

Session Classification: Poster Session

Contribution ID: 156

Type: **not specified**

41. Stabilization of the Molecular Crystal Composite Electrolyte - LiCoO₂ Potitive Electrolyte Interface by Introducing a Protective Layer

Tuesday 18 February 2025 16:40 (1 minute)

Presenter: OKOCHI, Tomoaki

Session Classification: Poster Session

Contribution ID: 157

Type: **not specified**

42. Langlands program and its application to number theory

Tuesday 18 February 2025 16:41 (1 minute)

Presenter: OONISHI, Haruto

Session Classification: Poster Session

Contribution ID: 158

Type: **not specified**

43. Dimension of the Hilbert space and time-reversal anomaly in bosonic TQFT

Tuesday 18 February 2025 16:42 (1 minute)

Presenter: ORII, Ippo

Session Classification: Poster Session

Contribution ID: 159

Type: **not specified**

44. Long-term heat-storage material based on novel metastable ceramics λ -Ti₃O₅

Tuesday 18 February 2025 16:43 (1 minute)

Presenter: OTAKE, Tomu

Session Classification: Poster Session

Contribution ID: 160

Type: **not specified**

45. Quantum-Classical correspondence for monitored quantum dynamics

Tuesday 18 February 2025 16:44 (1 minute)

Presenter: OYAIZU, Atsushi

Session Classification: Poster Session

Contribution ID: **161**

Type: **not specified**

46. Real-space observation of aging structures in colloidal gels

Tuesday 18 February 2025 16:45 (1 minute)

Presenter: SAITO, Shunichi

Session Classification: Poster Session

Contribution ID: **162**

Type: **not specified**

47. Gauge Theory and Generalized Cohomology

Tuesday 18 February 2025 16:46 (1 minute)

Presenter: SAITO, Shota

Session Classification: Poster Session

Contribution ID: 163

Type: **not specified**

48. Harmonic measures in invariant random graphs on Gromov hyperbolic spaces

Tuesday 18 February 2025 16:47 (1 minute)

Presenter: SAKAMOTO, Kohki

Session Classification: Poster Session

Contribution ID: **164**

Type: **not specified**

49. Representation theory of quantum groups

Tuesday 18 February 2025 16:48 (1 minute)

Presenter: SAKAMOTO, Heizo

Session Classification: Poster Session

Contribution ID: 165

Type: **not specified**

50. Development of non-covalent chemigenetic Ca²⁺ indicator

Tuesday 18 February 2025 16:49 (1 minute)

Presenter: SAKOI, Kenryo

Session Classification: Poster Session

Contribution ID: 166

Type: **not specified**

51. CMB polarimetry using a polarization modulator to probe cosmic inflation

Tuesday 18 February 2025 16:50 (1 minute)

Presenter: SASAKI, Daichi

Session Classification: Poster Session

Contribution ID: 167

Type: **not specified**

52. Towards the Universal Theory Behind Species-Specific Difference in Cellular Dedifferentiation Potential

Tuesday 18 February 2025 16:51 (1 minute)

Presenter: SASAMORI, Kansuke

Session Classification: Poster Session

Contribution ID: **168**

Type: **not specified**

53. Developing a Transient Event Alert System for the Tomo-e Gozen Wide-Field Survey

Tuesday 18 February 2025 16:52 (1 minute)

Presenter: SASAOKA, Taiga

Session Classification: Poster Session

Contribution ID: **169**

Type: **not specified**

54. Thermal Regulation of Protein Secretion Using Thermo-responsive Proteins

Tuesday 18 February 2025 16:53 (1 minute)

Presenter: SATO, Takahiro

Session Classification: Poster Session

Contribution ID: 170

Type: **not specified**

55. Introduction to Interacting Particle Systems

Tuesday 18 February 2025 16:54 (1 minute)

Presenter: SATO, Tomo

Session Classification: Poster Session

Contribution ID: 171

Type: **not specified**

56. Imaging stress distribution under high pressure using diamond quantum sensors

Tuesday 18 February 2025 16:55 (1 minute)

Presenter: SUDA, Ryotaro

Session Classification: Poster Session

Contribution ID: 172

Type: **not specified**

57. Label-free microscopy technologies

Tuesday 18 February 2025 16:56 (1 minute)

Presenter: SUGAWARA, Yusei

Session Classification: Poster Session

Contribution ID: 173

Type: **not specified**

58. Demonstration of THz-bandwidth all-optical quantum teleportation

Tuesday 18 February 2025 16:57 (1 minute)

Presenter: SUZUKI, Takumi

Session Classification: Poster Session

Contribution ID: 174

Type: **not specified**

59. Cuntz's picture of equivariant KK theory

Tuesday 18 February 2025 16:58 (1 minute)

Presenter: SUZUKI, Yusuke

Session Classification: Poster Session

Contribution ID: 175

Type: **not specified**

60. The effect of optimal self-distillation in noisy gaussian mixture model

Tuesday 18 February 2025 16:59 (1 minute)

Presenter: TAKANAMI, Kaito

Session Classification: Poster Session

Contribution ID: 176

Type: **not specified**

61. Relations between supermassive black holes and galaxies over cosmic history revealed by JWST

Tuesday 18 February 2025 17:00 (1 minute)

Presenter: TANAKA, Takumi

Session Classification: Poster Session

Contribution ID: 177

Type: **not specified**

62. Microscopic theory of the inverse Faraday effect in a multiorbital model

Tuesday 18 February 2025 17:01 (1 minute)

Presenter: TAZUKE, Kosuke

Session Classification: Poster Session

Contribution ID: 178

Type: **not specified**

63. An accurate estimator for galaxy-galaxy weak lensing power spectrum

Tuesday 18 February 2025 17:02 (1 minute)

Presenter: TERAWAKI, Taisei

Session Classification: Poster Session

Contribution ID: 179

Type: **not specified**

64. Noise-robust algorithm for real-space dynamics on quantum computers

Tuesday 18 February 2025 17:03 (1 minute)

Presenter: TSUOKA, Kazuki

Session Classification: Poster Session

Contribution ID: **180**

Type: **not specified**

65. Edge State of Bacterial Collective Motion Rectified by Asymmetric Channels

Tuesday 18 February 2025 17:04 (1 minute)

Presenter: UCHIDA, Yoshihito

Session Classification: Poster Session

Contribution ID: **181**

Type: **not specified**

66. Photon polarization tensor at finite temperature and density in a magnetic field

Tuesday 18 February 2025 17:05 (1 minute)

Presenter: UJI, Tomoya

Session Classification: Poster Session

Contribution ID: **182**

Type: **not specified**

67. Irradiation tolerace evaluation of DMAPS sensor for Belle II vertex detector upgrade

Tuesday 18 February 2025 17:06 (1 minute)

Presenter: WANG, Shijie

Session Classification: Poster Session

Contribution ID: **183**

Type: **not specified**

68. Threefold Way for Typical Entanglement

Tuesday 18 February 2025 17:07 (1 minute)

Presenter: YAGI, Haruki

Session Classification: Poster Session

Contribution ID: **184**

Type: **not specified**

69. Probing cosmic large scale structure with voids

Tuesday 18 February 2025 17:08 (1 minute)

Presenter: YAMADA, Yuka

Session Classification: Poster Session

Contribution ID: 185

Type: **not specified**

70. Pulse width dependence on Spin-Orbit Torque switching in an antiferromagnet Mn₃Sn thin film

Tuesday 18 February 2025 17:09 (1 minute)

Presenter: YAMADA, Shogo

Session Classification: Poster Session

Contribution ID: **186**

Type: **not specified**

71. Quasi-likelihood analysis for stochastic differential equation models

Tuesday 18 February 2025 17:10 (1 minute)

Presenter: YANO, Shota

Session Classification: Poster Session

Contribution ID: **187**

Type: **not specified**

72. Elliptic Genus in Gauged Linear Sigma Model

Tuesday 18 February 2025 17:11 (1 minute)

Presenter: ZHOU, Dongao

Session Classification: Poster Session