

Session Program

Feb 6 - 8, 2023



FoPM International Symposium

Poster Session

Ito Hall, Main auditorium

Tue, February 7

4:00 PM

Poster Session

Session | Location: Event Space B2

4:00 – 4:01 PM

1. The structure groups of a 4-manifold bundle and its relation to the vector bundle which consists of self-dual harmonic 2-forms

Speaker

Mitsuyoshi Adachi

4:01 – 4:02 PM

2. Characterization of Microplastics by Raman Flow Particle Analyzer

Speaker

Jun Akita

4:02 – 4:03 PM

3. Continuous-variable quantum approximate optimization algorithm for quadratic function

Speaker

Keitaro Anai

4:03 – 4:04 PM

4. Index Theorem and Heat Kernel (仮)

Speaker

Temma Aoyama

4:04 – 4:05 PM

5. semiclassical analysis(仮)

Speaker

Shinichi Arita

4:05 – 4:06 PM

6. Electromagnetic "Charge Beads" from Dark Matter

Speaker

Akifumi Chitose

4:06 – 4:07 PM

7. Hall effect of triplon in quantum spin dimer materials

Speaker

Nanse Esaki

4:07 – 4:08 PM

8. Magnon spin shift current in collinear antiferromagnets

Speaker

Kosuke Fujiwara

4:08 – 4:09 PM

9. Development of a Radio Frequency Dipole Mass Filter for the Francium Permanent Electric Dipole Moment Search

Speaker

Mirai Fukase

4:09 – 4:10 PM

10. Electronic states of Bi(111) surface studied by time-, spin- and angle-resolved photoemission spectroscopy**Speaker**

Yuto Fukushima

4:10 – 4:11 PM

11. Oscillation properties of microcrack-bearing α -quartz derived from molecular dynamics simulations**Speaker**

Ikuchi Funahashi

4:11 – 4:12 PM

12. Quantum sensor in two dimensional van der Waals material**Speaker**

Hao Gu

4:12 – 4:13 PM

13. Analyzing the Atmosphere of Exoplanets in Neptune Desert**Speaker**

Ziying Gu

4:13 – 4:14 PM

14. Analysis of the gravity wave on Venusian atmosphere revealed by LIR on board AKATSUKI (仮)**Speaker**

Zhuan Guo

4:14 – 4:15 PM

15. Intoduction to Geometric Neural Networks**Speaker**

Yoshihiro Gyotoku

4:15 – 4:16 PM

16. KK-theory through localization algebras**Speaker**

Ayoub Hafid

4:16 – 4:17 PM

17. synthesis and characterization of novel optoelectronic materials based on COPV structure**Speaker**

Xiu Han

4:17 – 4:18 PM

18. Subaru PFS: Analysis for 2D PSF modeling**Speaker**

Kota Hayashi

4:18 – 4:19 PM

19.**Speaker**

Muzi Hong

4:19 – 4:20 PM

20. Topos: the unexpected bridge between Logic and Geometry**Speaker**

Ryuya Hora

4:20 – 4:21 PM

21. Label-free Microscopy for Imaging Live Cells**Speaker**

Kohki Horie

4:21 – 4:22 PM

22. Equivariant covering spaces of quantum homogeneous spaces**Speaker**

Mao Hoshino

4:22 – 4:23 PM

23. Research on Low-Loss High-Repetition-Rate Optical Switch with Quantum Teleportation**Speaker**

Ryuhoh Ide

4:23 – 4:24 PM

24. Design method of a broadband planar magic-T: a 6-14GHz scaled model for mm/submm camera**Speaker**

Shuhei Inoue

4:24 – 4:25 PM

25. A combinatorial structure of Gelfand-Tsetlin patterns and a natural sijection between monotone triangles and shifted Gelfand-Tsetlin patterns**Speaker**

Takuya Inoue

4:25 – 4:26 PM

26. Development of a fine pixel semiconductor X-ray polarimeter**Speaker**

Toshiya Iwata

4:26 – 4:27 PM

27. R^2 inflation with the baryogenesis scenario**Speaker**

Hyun Jeong

4:27 – 4:28 PM

28. Simulation of planetesimal accretion with realistic gas disc evolution**Speaker**

Yuki Kambara

4:28 – 4:29 PM

29. The bigraded Rumin complex and Lee conjecture**Speaker**

Shuhou Kanda

4:29 – 4:30 PM

30. Sommerfeld effect**Speaker**

Kiri Karayama

4:30 – 4:31 PM

31. Lane-Emden equation with supercritical nonlinearity**Speaker**

Sho Katayama

4:31 – 4:32 PM

32. Indirect detection of Dark Matter with radio observation

Speaker

Chikara Kawai

4:32 – 4:33 PM

33. Replica method and Rényi entropies**Speaker**

Kotaro Kawasumi

4:33 – 4:34 PM

34. Kitaev nanoribbon with boundary dephasing**Speaker**

Shunta Kitahama

4:34 – 4:35 PM

35. The relation between morphology of *Euglena gracilis* and their removal efficiency of heavy metals**Speaker**

Tsubasa Kobayashi

4:35 – 4:36 PM

36. Target-oriented design of helical nanotube molecules for rolled incommensurate bilayers**Speaker**

Yuki Kotani

4:36 – 4:37 PM

37. Yang-Lee Singularity in BCS Superconductivity**Speaker**

Hongchao Li

4:37 – 4:38 PM

38. Cavity Moiré Materials: controlling correlated phases of matter with quantum light-matter couplings**Speaker**

Kanta Masuki

4:38 – 4:39 PM

39. Primordial Helium Abundance Probed by Subaru Spectroscopy: A Test of the Cosmological Model**Speaker**

Akinori Matsumoto

4:39 – 4:40 PM

40. Calibration and Timing Resolution Evaluation of Liquid Xenon Gamma Ray Detector in MEG II Experiment**Speaker**

Ayaka Matsushita

4:40 – 4:41 PM

41. Shaping microwave photons with frequency tunability using a fixed-frequency superconducting qubit**Speaker**

Takeaki Miyamura

4:41 – 4:42 PM

42. Next Generation Biosensors Enabled by High-speed Visualization of Dynamic Mechanisms

Speaker

Ikumi Miyazaki

4:42 - 4:43 PM

43. Variational approach to Kondo effect in cavity QED**Speaker**

Jun Mochida

4:43 - 4:44 PM

44. Evaluation systems for the development of biosensors to measure force on cells**Speaker**

Tomoya Mukai

4:44 - 4:45 PM

45. Towards the application of thermodynamic trade-off relations to reaction-diffusion systems**Speaker**

Ryuna Nagayama

4:45 - 4:46 PM

46. Graphical Approach for Characterization of Non-Gaussian Quantum Process**Speaker**

Hironari Nagayoshi

4:46 - 4:47 PM

47. New mysterious signal from the dawn of our universe ~a study of its precise calculation ~**Speaker**

Fumihiro Naokawa

4:47 - 4:48 PM

48. Quantitative magnetic imaging of superconducting quantum vortex using solid-state quantum spin sensor**Speaker**

Shunsuke Nishimura

4:48 - 4:49 PM

49. Boltzmann equation in two-dimensional electron system with spin-orbit coupling**Speaker**

Naoki Nishimura

4:49 - 4:50 PM

50. Broadband quantum memory with a concatenated optical cavity**Speaker**

Takefumi Nomura

4:50 - 4:51 PM

51. Universal relations on nonequilibrium entropy in classical fluctuating systems**Speaker**

Naruo Ohga

4:51 - 4:52 PM

52. Axion detection via superfluid ^3He using quantum technologies

Speaker

Risshin Okabe

4:52 – 4:53 PM **53. On 2d Rational CFTs****Speaker**

Masaki Okada

4:53 – 4:54 PM

54. Direct measurement of the $^{26}\text{Si}(a,p)^{29}\text{P}$ reaction for the nucleosynthesis in the X-ray bursts**Speaker**

Kodai Okawa

4:54 – 4:55 PM **55. Orbital order in a strongly correlated electron systems****Speaker**

Satoshi Omura

4:55 – 4:56 PM

56. Waveform inversion for the 3D S-wave velocity structure in D'' beneath the Southern Atlantic**Speaker**

Keisuke Otsuru

4:56 – 4:57 PM **57. Automorphisms of Calabi-Yau manifolds****Speaker**

Renji Sakamoto

4:57 – 4:58 PM

58. Label-free observation of dynamics of small particles by interferometric scattering microscopy**Speaker**

Masato Sawa

4:58 – 4:59 PM

59. Quantitative analysis of Akt isoforms' temporal dynamics and downstream regulation with mathematical model-aided optogenetics**Speaker**

Yuka Sekine

4:59 – 5:00 PM

60. Study on first-level trigger of the Belle II experiment using upgraded silicon strip detector**Speaker**

Tomoyuki Shimasaki

5:00 – 5:01 PM **61. Fundamental equations for open quantum many-body systems****Speaker**

Koki Shiraishi

5:01 – 5:02 PM **62. Search for black holes by the TESS survey of light variation****Speaker**

Yuta Shiraishi

5:02 – 5:03 PM

63. Monte Carlo Methods and Physics**Speaker**

Sora Shiratani

5:03 – 5:04 PM

64. Development for Axion Search using Quantum Non-Demolition Detection of Magnons**Speaker**

Yaman Singh Shrestha

5:04 – 5:05 PM

65. Chern Simons theory and Quantum Hall Effect**Speaker**

Hiroyuki Sudo

5:05 – 5:06 PM

66. Simultaneous laser stabilization by optical frequency comb for Sr optical lattice clocks**Speaker**

Kai Suekane

5:06 – 5:07 PM

67. Thermoelectric properties in semimetals with inelastic electron-hole scattering**Speaker**

Keigo Takahashi

5:07 – 5:08 PM

68. Grand Unified Theory and Proton Decay**Speaker**

Hiroki Takahashi

5:08 – 5:09 PM

69. Evaluation of superconducting nano strip photon-number-resolving detectors with additional coils**Speaker**

Kazuma Takahashi

5:09 – 5:10 PM

70. Mining for the Protoclusters at $z \sim 4$ from HSC-SSP photometric dataset with Deep Learning**Speaker**

Yoshihiro Takeda

5:10 – 5:11 PM

71. Continuous cooling and extraction of ultracold strontium atoms by a moving lattice**Speaker**

Ryoto Takeuchi

5:11 – 5:12 PM

72. Programmable generation of optical quantum states with two waveguide optical parametric amplifiers**Speaker**

Hiroko Tomoda

5:12 - 5:13 PM

73. Search for dust-obscured supermassive black holes in the early universe**Speaker**

Akiyoshi Tsujita

5:13 - 5:14 PM

74. Cosmic Reionization History and Sources Probed by Imaging and Spectroscopy with the Subaru Telescope**Speaker**

Hiroya Umeda

5:14 - 5:15 PM

75. Developing a high-resolution Doppler broadening spectroscopy for cold positronium**Speaker**

Ryosuke Uozumi

5:15 - 5:16 PM

76. Intelligent Disease Classification Based on Platelet Imaging System**Speaker**

Huidong Wang

5:16 - 5:17 PM

77. Conformal field theories and error correcting codes**Speaker**

Shinichiro Yahagi

5:17 - 5:18 PM

78. Quantum algorithm for collisionless Boltzmann simulation**Speaker**

Soichiro Yamazaki

5:18 - 5:19 PM

79. Penalized estimation for non-identifiable models**Speaker**

Junichiro Yoshida

5:19 - 5:20 PM

80. Floquet Many-body Theory of the Driven BCS Superconductors and its Application to High Harmonic Generations**Speaker**

Huanyu Zhang

5:20 - 5:21 PM

81.**Speaker**

Yaqi Zhao

6:00 PM