Session Program

Mar 14 – 15, 2024

FPUA 2024

Oral

Okayama University, OUX (Kyoiku Kyoso Commons)
3-1-1 Tushimanaka, Kita-ku, Okayama 700-8530, JAPAN

Thu, March 14

9:10 AM

Oral: Session 1

Session | **Location:** OUX, Lecture Hall | **Convener:** Takahiko Masuda

9:10 – 9:40 AM

Advancing EDM searches with ultracold radioactive molecules at FRIB

Speaker
Xing Wu

9:40 – 10:10 AM

New methods for quantum control of polar molecules for symmetry-violation searches

Speaker
Chi Zhang

10:10 – 10:35 AM

Current status of laser and optical system for EDM search using cold francium atoms at RIKEN/CNS

Speaker
Keisuke Nakamura

10:35 AM

11:00 AM

Oral: Session 2

Session | **Location:** OUX, Lecture Hall | **Convener:** Akira Ishida

11:00 – 11:30 AM **Three-particles Aharonov-Bohm effect**

Speaker
Yutaka Shikano

11:30 AM – 12:00 PM **Control of equilibrium and non-equilibrium Casimir forces**

Speaker
Hideo Ilzuka

12:00 – 12:30 PM

Towards quantum gravity: Test of Gravitational Inverse Square Law and Lorentz Invariance

Speaker
Jiro Murata

12:30 PM

2:30 PM

Oral: Session 3

Session | **Location:** OUX, Lecture Hall | **Convener:** Kazuhiko Sugiyama

2:30 – 3:00 PM **Nuclear and particle physics with cold ytterbium and Rydberg atoms**

Speaker
Akio Kawasaki

3:00 – 3:25 PM

Production-decay dynamics of Th-229 nuclear clock isomeric state in crystal

Speaker
Ming Guan

3:25 – 3:50 PM
Progress of a Neutron Electric Dipole Search by the TUCAN Collaboration

Speaker
Shinsuke Kawasaki

3:50 PM

4:10 PM

Oral: Session 4

Session | **Location:** OUX, Lecture Hall | **Convener:** Hirohiko Shimizu

4:10 – 4:40 PM
Light Dark Matter Search with Nitrogen-Vacancy Centers in Diamonds

Speaker
Kazunori Nakayama

4:40 – 5:05 PM **Directional Detection of Cosmic Ray Boosted Dark Matter**

Speaker
Keiko Nagao

5:05 – 5:25 PM **Quantum entanglement of ions for light dark matter detection**

Speaker
Asuka Ito

5:25 – 5:45 PM
Research and development towards an axion search experiment using quantum sensing of magnons

Speaker
Yaman Singh Shrestha

5:45 PM

Fri, March 15

9:00 AM

Oral: Sesseion 5

Session | **Location:** OUX, Lecture Hall | **Convener:** Noboru Sasao

9:00 – 10:00 AM **Study of Gravitational Wave by LIGO : past, present and future**

Speaker
Hiroaki Yamamoto

10:00 AM

10:25 AM

Oral: Session 6

Session | **Location:** OUX, Lecture Hall | **Convener:** Yasuhiro Sakemi

10:25 – 11:05 AM
Fundamental Physics Using (Anti)hydrogen Atoms: ALPHA at CERN and HAICU at TRIUMF

Speaker
Makoto Fujiwara

11:05 – 11:30 AM
Magnetic field studies using electron plasmas for gravitational experiments with antihydrogen

Speaker
Adam Powell

11:30 AM

1:00 PM

Oral: Session 7

Session | **Location:** OUX, Lecture Hall | **Convener:** Koichiro Shimomura

1:00 – 1:30 PM **Fundamental physics using exotic atoms at J-PARC**

Speaker
Shinji Okada

1:30 – 1:55 PM **Muon Penning Trap Experiment at J-PARC**

Speaker
Shoichiro Nishimura

1:55 – 2:20 PM **Mu-antiMu conversion search in J-PARC**

Speaker
Naritoshi Kawamura

2:20 PM

2:45 PM

Oral: Session 8

Session | **Location:** OUX, Lecture Hall | **Convener:** Minoru Tanaka

2:45 – 3:10 PM
Space time evolution of the lepton number densities including the momentum distribution

Speaker
Takuya Morozumi

3:10 – 3:35 PM **Coherence amplification using atoms (ions) for fundamental physics**

Speaker
Akihiro Yoshimi

3:35 – 4:00 PM

Disentangle neutrino electromagnetic properties with atomic radiative pair emission

Speaker
Shao-Feng Ge

4:00 PM