



## FPUA 2024

## Thursday, March 14, 2024

Oral: Session 1 - Lecture Hall (9:10 AM - 10:35 AM)

-Conveners: Takahiko Masuda

time	[id] title	presenter
9:10AM	[4] Advancing EDM searches with ultracold radioactive molecules at FRIB	WU, Xing
9:40AM	[5] New methods for quantum control of polar molecules for symmetry-violation searches	ZHANG, Chi
10:10AM	[6] Current status of laser and optical system for EDM search using cold francium atoms at RIKEN/CNS	NAKAMURA, Keisuke

Oral: Session 2 - Lecture Hall (11:00 AM - 12:30 PM)

-Conveners: Akira Ishida

time	[id] title	presenter
11:00AM	[8] Three-particles Aharonov-Bohm effect	SHIKANO, Yutaka
11:30AM	[9] Control of equilibrium and non-equilibrium Casimir forces	IIZUKA, Hideo
12:00PM	[10] Towards quantum gravity: Test of Gravitational Inverse Square Law and Lorentz Invariance	MURATA, Jiro

Oral: Session 3 - Lecture Hall (2:30 PM - 3:50 PM)

-Conveners: Kazuhiko Sugiyama

time	[id] title	presenter
2:30PM	[11] Nuclear and particle physics with cold ytterbium and Rydberg atoms	KAWASAKI, Akio
3:00PM	[12] Production-decay dynamics of Th-229 nuclear clock isomeric state in crystal	GUAN, Ming
3:25PM	[7] Progress of a Neutron Electric Dipole Search by the TUCAN Collaboration	KAWASAKI, Shinsuke

Oral: Session 4 - Lecture Hall (4:10 PM - 5:45 PM)

-Conveners: Hirohiko Shimizu

time	[id] title	presenter
4:10PM	[13] Light Dark Matter Search with Nitrogen-Vacancy Centers in Diamonds	NAKAYAMA, Kazunori
4:40PM	[15] Directional Detection of Cosmic Ray Boosted Dark Matter	NAGAO, Keiko
5:05PM	[14] Quantum entanglement of ions for light dark matter detection	ITO, Asuka
5:25PM	[16] Research and development towards an axion search experiment using quantum sensing of magnons	SINGH SHRESTHA, Yaman

# Friday, March 15, 2024

## Oral: Sesseion 5 - Lecture Hall (9:00 AM - 10:00 AM)

-Conveners: Noboru Sasao

time	[id] title	presenter
9:00AM	[3] Study of Gravitational Wave by LIGO : past, present and future	YAMAMOTO, Hiroaki

## Oral: Session 6 - Lecture Hall (10:25 AM - 11:30 AM)

-Conveners: Yasuhiro Sakemi

time	[id] title	presenter
10:25AM	[17] Fundamental Physics Using (Anti)hydrogen Atoms: ALPHA at CERN and HAICU at TRIUMF	FUJIWARA, Makoto
11:05AM	[18] Magnetic field studies using electron plasmas for gravitational experiments with antihydrogen	POWELL, Adam

## Oral: Session 7 - Lecture Hall (1:00 PM - 2:20 PM)

-Conveners: Koichiro Shimomura

time	[id] title	presenter
1:00PM	[19] Fundamental physics using exotic atoms at J-PARC	OKADA, Shinji
1:30PM	[20] Muon Penning Trap Experiment at J-PARC	NISHIMURA, Shoichiro
1:55PM	[21] Mu-antiMu conversion search in J-PARC	KAWAMURA, Naritoshi

## Oral: Session 8 - Lecture Hall (2:45 PM - 4:00 PM)

-Conveners: Minoru Tanaka

time	[id] title	presenter
2:45PM	[24] Space time evolution of the lepton number densities including the momentum distribution	MOROZUMI, Takuya
3:10PM	[23] Coherence amplification using atoms (ions) for fundamental physics	YOSHIMI, Akihiro
3:35PM	[22] Disentangle neutrino electromagnetic properties with atomic radiative pair emission	GE, Shao-Feng