

## **Session Program**

**7-12 Sept 2025**



## **Physics of fundamental Symmetries and Interactions - PSI2025**

### ***Poster Session and BBQ***

PSI, WHGA/001 - Auditorium

## Tuesday 9 September

16:30

### Poster Session and BBQ: Poster Session and BBQ

**Session** | **Location:** Outside Auditorium and Tent

**16:30–16:31** **Non-linearity correction of SiPMs in the MEG-II liquid xenon detector**

**Speaker**

Sei Ban

**16:31–16:32**

**Determination of Resonance Spin via Low-Energy Gamma-Ray Spectroscopy in Neutron Capture Reactions**

**Speaker**

Dr Shunsuke Endo

**16:32–16:33**

**Ultracold neutron energy spectrum from magnetic depolarization**

**Speaker**

Efrain Patrick Segarra

**16:33–16:34**

**Chiral EFT Approach to Bremsstrahlung Corrections and Charge Asymmetry in Elastic Lepton-Proton Scattering**

**Speaker**

Ms Bhoomika Das

**16:34–16:35**

**Nuclear structure studies close to shell closure  $N = 126$  using quasiparticle-phonon plus rotor method**

**Speaker**

Youssra Elabssaoui

**16:35–16:36**

**Precision Spectroscopy of Low-Lying States in Muonic Boron with MMC Detectors**

**Speaker**

Aziza Zendour

**16:37–16:38**

**Study on the Radiation Damage of VUV-sensitive MPPC in Liquid Xenon**

**Speaker**

Ryusei Umakoshi

**16:38–16:39**

**Neutron-to-mirror-neutron oscillations in an ultracold neutron beam**

**Speaker**

Daniel Galbinski

**16:39–16:40**

**Characterization of the Swiss Spallation Neutron Source as a Site for Neutrino Experiments**

**Speaker**

Sergey Konstantin Ermakov

**16:40–16:41 Gravity induced CP violation in neutral mesons experiments****Speaker**

jean-marcel rax

**16:41–16:42 Status of the magnetic shield for the muEDM experiment****Speaker**

Pranas Juknevičius

**16:42–16:43 Testing QED and Beyond with ortho-Positronium****Speaker**

Beining Rao

**16:43–16:44****Application of Transformer-Based Machine Learning Architecture to the Positron Spectrometer Data Analysis in the MEG II Experiment****Speaker**

Atsushi Oya

**16:44–16:45****Impact of NNLO QED vs. TPE corrections in lepton-proton scattering at MAMI****Speaker**

Matteo Ronchi

**16:45–16:46 Status of the neutron decay experiment PERC****Speaker**

Lilli Löbell

**16:46–16:47 Recent results from CUORE and path towards CUPID****Speaker**

Nicola Manenti

**16:47–16:48****Beamline and magnetic field preparation for correlation coefficients measurements in the BRAND experiment****Speaker**

Clément Desalme

**16:48–16:49****Performance evaluation of LYSO crystals for energy and timing measurements in a gamma-ray pair spectrometer for future  $\mu\text{to } e\gamma$  experiment****Speaker**

Rei Sakakibara

**16:49–16:50 Mott Polarimeter for Neutron Correlation Coefficients Measurement****Speaker**

Mr Shantanu Bhalerao

**16:50–16:51 The Mu3e Commissioning Run at PSI in 2025**

**Speaker**

Mikio Sakurai

16:51–16:52

**Towards optimal data flow in high-energy physics: achieving determinism and real-time in the Mu3e experiment****Speaker**

Yifeng Wang

16:52–16:53

**Spin-selective detection and manipulation of ultracold neutrons****Speakers**

Josef Tremmel, Tim Sandmann

16:53–16:54

**The Tracking Detector for the P2 Experiment****Speaker**

Lucas S. Binn

16:54–16:55

**Simulation study of background and systematic effects for the muEDM experiment at PSI****Speaker**

David Hoehl

16:55–16:56

**Efficiency of the neutron spin transport system in the n2EDM experiment****Speaker**

Gian Caratsch

16:56–16:57

**The Mu3e Data Acquisition System****Speaker**

Dr Alexandr Kozlinskiy

16:57–16:58

**Towards Charge conjugation symmetry test in Electromagnetic Interaction using J-PET****Speaker**

Pooja Tanty

16:58–16:59

**Bayesian Optimization and Real-Time Control in the Muon EDM Experiment at PSI****Speaker**

J. Alexander Jaeger

16:59–17:00

**Search for the Fierz Interference Term with PERKEO III****Speaker**

Anna Schubert

17:00–17:01

**Muonic Atom Spectroscopy of U-238 for the Extraction of Nuclear Properties****Speaker**

Anastasia Doinaki

17:01-17:02

**The PanEDM Experiment: Commissioning Progress and Subsystem Overview****Speaker**

Dr Kseniia Svirina

17:02-17:03

**The Mu3e Scintillating Fiber Detector****Speaker**

Gentian Shatri

17:03-17:04

**The free neutron lifetime experiment  $\tau$ SPECT****Speaker**

Julian Auler

17:04-17:05

**Calibration of the MEG II Pixelated Timing Counter for 2023-2024 Dataset****Speaker**

Weiyuan Li

17:05-17:06

**Normalization detectors for the neutron lifetime experiment  $\tau$ SPECT****Speaker**

Viktoria Ermuth

17:06-17:07

**Polarizers for ultra-cold and very cold neutrons based on reflection off iron-cobalt foils****Speaker**

Oliver Zimmer

17:07-17:08

**Offline Characterization of a Highly Uniform Magnetic Field for the n2EDM Experiment****Speaker**

Valentin Czamler

17:08-17:09

**An optically pumped Cesium magnetometry array for the n2EDM experiment****Speaker**

Lea Segner

17:09-17:10

**Calibration and commissioning of the Mu3e Vertex Detector****Speaker**

Thomas Senger

17:10-17:11

**Monte Carlo simulation framework for the neutron lifetime experiment  $\tau$ SPECT****Speaker**

Niklas Pfeifer

17:11-17:12

**Demonstration of LYSO crystals as a high resolution calorimeter option for the new PIONEER experiment**

**Speaker**

Mr Omar Beesley

17:12-17:13

**Storing muons and freezing spin: development of a fast kicker magnet and electrode system****Speaker**

Timothy David Hume

17:13-17:14

**Development of a cryogenic device for a polarized target nuclei to search for the time-reversal symmetry violation in compound nucleus****Speaker**

Ms Shiori Kawamura

17:14-17:15

**A spatially resolving detector for ultracold neutrons****Speaker**

Konrad Franz

17:15-17:16

**Performance of a Magnetically Shielded Room for the Xenon EDM Experiment****Speaker**

Fabian Allmendinger

17:16-17:17

**Enhanced antihydrogen accumulation with laser-cooled Be<sup>+</sup>****Speaker**

Joanna Peszka

17:17-17:18

**The <sup>199</sup>Hg Co-magnetometer System for the n2EDM Experiment****Speakers**

Nikolaus Stephan Edler von Schickh, Wenting Chen

17:18-17:19

**Interferometric measurements for the LEMING experiment****Speaker**

Francesco Lancellotti

17:19-17:20

**The muEDM Experiment Technical Overview****Speaker**

Diego Alejandro Sanz Becerra

17:20-17:21

**The ground state hyperfine splitting in muonic hydrogen experiment (HyperMu) at PSI****Speaker**

Ahmed Ouf

17:21-17:22

**Development of Key Components of the UCN-Optics System of PanEDM****Speaker**

Luca Kaess

17:22-17:23

**qBounce: developments and implementation of new experimental techniques**

**Speaker**

Dr Johann Marton

17:23–17:24

**The Gradiometer: A detection system for magnetic contamination in n2EDM****Speaker**

Luz Sanchez-Real Zielniewicz

17:24–17:25

**Determination of a Rate-Dependent Gain Correction for the Muon g-2 Calorimeters at Fermilab****Speaker**

Dr Joshua LaBounty

17:25–17:26

**Mu3e Online Event Selection on GPU****Speaker**

Chen Xie

17:26–17:27

**MCUCN simulations for n2EDM - study of UCN spin kinetics****Speaker**

Geza Zsigmond

17:27–17:28

**Physics with Ultra-Cold and Very-Cold Neutrons at the PF2****Speaker**

Dr Hanno Filter-Pieler

17:28–17:29

**A new view on Quantum Computers****Speaker**

Daniel Aziz

17:29–17:30

**Towards a new generation split-crystal interferometer****Speaker**

Michael Jentschel

17:30–17:31

**A new results of neutron lifetime measurement with cold neutron beam at J-PARC****Speaker**

Kenji Mishima

17:31–17:32

**Spin dependent exotic interactions****Speaker**

Lei Cong

17:32–17:33

**Search for Exotic Forces****Speaker**

Lei Cong

19:30