

Session Program

7-12 Sept 2025



Physics of fundamental Symmetries and Interactions - PSI2025

Session

PSI, WHGA/001 - Auditorium

Monday 8 September

09:00

Session: Mo - 1

Session | **Location:** PSI, WHGA/001 - Auditorium | **Convener:** Klaus Stefan Kirch

09:00–09:05 **Welcome address**

Speaker

Marc Janoschek

09:05–09:35

The Muon Anomalous Magnetic Moment: Final Results from the Muon g-2 Experiment at Fermilab

Speaker

Simon Corrodi

09:35–10:05

Current status of theory for medium and heavy muonic atoms

Speaker

Dr Natalia S. Oreshkina

10:05–10:35

Peeping at the Universe through the keyhole: the neutron electric dipole moment

Speaker

Stéphanie Roccia

10:35

11:05

Session: Mo - 2

Session | **Location:** PSI, WHGA/001 - Auditorium | **Convener:** Georg Bison

11:05–11:35

Highly Charged Ion Clocks to Test Fundamental Physics

Speaker

Piet O. Schmidt

11:35–12:05

On the horizon: the ^{229m}Th nuclear clock

Speaker

Peter G. Thirolf

12:05–12:25

Status of the MUSE Experiment

Speaker

Dr Tigran Rostomyan

12:35

14:00

Session: Mo - 3

Session | **Location:** PSI, WHGA/001 - Auditorium | **Convener:** Prof. Martin Ferli

14:00–14:30

Fundamental physics with ultracold neutrons at LANL

Speaker

Takeyasu Ito

14:30–14:50

SuperSUN: A high-density Source of Ultracold Neutrons at ILL

Speaker

Estelle Chanel

14:50–15:10

Measurement of the Neutron Electric Charge using Grating Interferometry**Speaker**

Marc Persoz

15:10–15:30

Sensitive search for neutron to mirror-neutron oscillations at the PSI UCN source**Speaker**

Nathalie Ziehl

15:30

16:00

Session: Mo - 4**Session** | **Location:** PSI, WHGA/001 - Auditorium | **Convener:** Michael Jentschel

16:00–16:30

Searching for Neutrinoless Double-Beta Decay**Speaker**

Julieta Gruszko

16:30–16:50

Precision measurements in superallowed $0^+ \rightarrow 0^+$ β decays at GANIL and upcoming opportunities**Speaker**

Bernadette Rebeiro

16:50–17:20

Measurement of the $2\text{S}, ^3\text{S}_1 \rightarrow 2\text{S}, ^1\text{P}_1$ transition in positronium**Speaker**

Rebecca Daly

17:20–17:40

New results of positronium 1S-2S transition and Muonium Fine structure**Speaker**

Edward Thorpe-Woods

17:40

Tuesday 9 September

09:00

Session: Tu - 1

Session | **Location:** PSI, WHGA/001 - Auditorium | **Convener:** Eberhard Widmann

09:00–09:30

New Era in Fundamental Physics with Antihydrogen

Speaker

Makoto Fujiwara

09:30–10:00

Antihydrogen beam formation in the ASACUSA-Cusp experiment

Speaker

Eric Hunter

10:00–10:20

Antihydrogen production in the GBAR experiment at CERN

Speaker

Dr Christian Regenfus

10:20

10:50

Session: Tu - 2

Session | **Location:** PSI, WHGA/001 - Auditorium | **Convener:** Dieter Achim Ries

10:50–11:20

From MAMI to MESA: Precision Tools to Probe Fundamental Interactions and Search for New Physics

Speaker

Concettina Sfienti

11:20–11:50

Fundamental Symmetry Studies with Radioactive Molecules

Speaker

Prof. Ronald F Garcia Ruiz

11:50–12:20

Beta Decay Correlation Program at Spallation Neutron Source

Speaker

Nadia Fomin

12:20–12:40

The future science program at the Fundamental Neutron Physics Beamline

Speaker

Wolfgang Schreyer

12:40

14:00

Session: Tu - 3

Session | **Location:** PSI, WHGA/001 - Auditorium | **Convener:** Susan Seestrom

14:00–14:30

Fundamental Physics with Very-cold and Ultracold Neutrons at the Institut Laue-Langevin

Speaker

Tobias JENKE

15:00

14:30–15:00

The TRIUMF Ultra Cold Advanced Neutron Source and EDM Experiment: First UCN detected and EDM spectrometer status

Speaker

Russell Mammei

15:30

Session: Tu - 4

Session | **Location:** PSI, WHGA/001 - Auditorium | **Convener:** Kenji Mishima

15:30–15:50

Advances in Ultra-Cold Neutron Science at TRIGA Mainz: Detector development, spin control, simulations, and the τ SPECT Experiment

Speaker

Sylvain Vanneste

15:50–16:10

Recoil-order and radiative corrections to the aCORN experiment

Speaker

Fred Wietfeldt

16:10–16:30

Discovery prospects for eEDM and nEDM in the general two Higgs doublet model

Speaker

George W.S. Hou

16:30

Wednesday 10 September

09:00

Session: Wed - 1

Session | **Location:** PSI, WHGA/001 - Auditorium | **Convener:** Claude Amsler

09:00–09:30

Feebly Interacting Particles in the MeV-GeV range: experimental landscape

Speaker

Mrs Gaia Lanfranchi

09:30–10:00

Searching for Ultra-Low-Mass Dark Matter with Precision Atomic Experiments

Speaker

Yevgeny Stadnik

10:00–10:20

Future perspectives for $\mu \rightarrow e \gamma$ searches

Speaker

Wataru Ootani

10:20–10:40

Progress towards precision measurement of muon-electron elastic scattering: the MUonE experiment

Speaker

Frederick Gray

10:40

11:10

Session: Wed - 2

Session | **Location:** PSI, WHGA/001 - Auditorium | **Convener:** Hirohiko Shimizu

11:10–11:40

Fundamental physics with NMR: from high field to lower than low

Speaker

DMITRY BUDKER

11:40–12:10

Fundamental symmetries violations in atoms: theory status, challenges, and outlook

Speaker

Prof. Jacinda Ginges

12:10–12:40

Testing CPT with the Lepton Symmetry Experiment LSym

Speaker

Sven Sturm

12:40

14:00

Session

Session | **Location:** PSI, WHGA/001 - Auditorium | **Convener:** Philipp Schmidt-Wellenburg

14:00–14:30

Muonium Precision Experiments at J-PARC

Speaker

Patrick Strasser

14:30–15:00

Latest results from the LEMING experiment

Speaker

Anna Soter

15:00–15:30

New Advances in Muonic Atom Spectroscopy

Speaker

Katharina von Schoeler

15:30–15:50

Quantum logic spectroscopy of the hydrogen molecular ion

Speaker

Fabian Schmid

15:50

Thursday 11 September

09:00

Session: Thu - 1

Session | **Location:** PSI, WHGA/001 - Auditorium | **Convener:** Torsten Soldner

09:00–09:30

Study of Neutron Optics and Physics in Japan

Speaker

Hirohiko Shimizu

09:30–10:00

Particle physics possibilities at the ESS

Speaker

David Milstead

10:00–10:30

Searching X17 with MEG

Speaker

Angela Papa

10:30

11:00

Session: Thu - 2

Session | **Location:** PSI, WHGA/001 - Auditorium | **Convener:** Oliver Zimmer

11:00–11:30

The PIONEER experiment: searching for new physics with PSI's low energy pions

Speaker

Chloe Malbrunot

11:30–12:00

Experimental Overview of Neutron Lifetime Measurements

Speaker

Chen-Yu Liu

12:00–12:30

Mirror beta transitions as an additional probe for V_{ud}

Speaker

Nathal Severijns

12:30–12:50

Extraction of the weak magnetism and Fierz interference term from precision spectrum shape measurements in the miniBETA project

Speaker

Dagmara Rozpedzik

12:50

14:00

Session: Thu - 3

Session | **Location:** PSI, WHGA/001 - Auditorium | **Convener:** Aldo Antognini

14:00–14:30

Precision Penning-Trap Mass measurements for Fundamental Studies

Speaker

Klaus Blaum

14:30–14:50

Progress towards a new measurement of the fine structure constant

Speaker

Madeline Bernstein

14:50–15:10

Measurements of charge exchange cross section of antiprotons with positronium in GBAR**Speaker**

Ivana Belosevic

15:10–15:30

Towards the study of antiprotonic atoms and their annihilation fragments at AEGIS**Speaker**

Fredrik Parnefjord Gustafsson

15:30

16:00

Session: Thu - 4**Session** | **Location:** PSI, WHGA/001 - Auditorium | **Convener:** Malte Hildebrandt

16:00–16:20

Measurement of the EDM of the muon and betadecaying nuclei using the frozen-spin technique in a compact storage trap**Speaker**

Philipp Schmidt-Wellenburg

16:20–16:40

Measuring the electron electric dipole moment using ultracold YbF molecules**Speaker**

Elise Wursten

16:40–17:00

Status and progress of the NL-eEDM experiment**Speaker**

Jelmer Levenga

17:00–17:20

NuPECC Long Range Plan 2024 for European Nuclear Physics**Speaker**

Eberhard Widmann

17:20

Friday 12 September

09:00

Session: Fri - 1

Session | **Location:** PSI, WHGA/001 - Auditorium | **Convener:** Wataru Ootani

09:00–09:30 **70 years of muon radiography: a biased historical overview**

Speaker

Christopher Morris

09:30–10:00 **NREC - the Nuclear Radius Extraction Collaboration**

Speaker

Jan Bernauer

10:00–10:30 **Charge radii of the lightest nuclei (Z=1 and 2)**

Speaker

Randolf Pohl

10:30

11:00

Session: Fri - 2

Session | **Location:** PSI, WHGA/001 - Auditorium | **Convener:** Efrain Patrick Segarra

11:00–11:30 **Kaon physics: present status and prospects**

Speaker

Radoslav Marchevski

11:30–11:50

Recent developments in the theoretical description of $\mu \rightarrow e \gamma$ conversion in nuclei

Speaker

Frederic Noël

11:50–12:10 **The Mu3e Experiment**

Speaker

Frederik Wauters

12:10–12:30 **Status of the High Intensity Muon Beamline at PSI**

Speaker

Andreas Knecht

12:30–12:35 **Final remarks**

12:40