# **Session Program**

21-26 Sept 2025



# **European Nuclear Physics Conference 2025 Nuclear Structure, Spectroscopy and Dynamics**

Moho 16 bis Quai Hamelin 14000 CAEN

## **Monday 22 September**

14:00

## Nuclear Structure, Spectroscopy and Dynamics: 1

Session | Location: Moho, 16 bis Quai Hamelin 14000 CAEN | Convener: Dr Emmanuel CLEMENT

14:00-14:25 Physics of nuclear threshold effects

Speaker

Prof. Marek Ploszajczak

14:25-14:45 Exotic cross-shell interactions at \$N=28\$ with single-neutron transfer on \$^{47}\$K

Speaker

Charlie James PAXMAN

14:45-15:05 Low-lying spectroscopy of 20O and 19O with ACTAR TPC

Speaker

MIGUEL LOZANO GONZALEZ

15:05-15:25 Is \$^{14}\$C nuclear chain puzzle solved?

Speaker

Alessia Francesca Di Pietro

15:25-15:45

Exploring unbound states of \$^{18}\$C in inverse kinematics with the R\$^3\$B experimental setup

Speaker

Martina Feijoo-Fontán

15:45–16:05 Short-range correlations in stable and asymmetric nuclei investigated at R<sup>3</sup>B

Speaker

ANDREA LAGNI -

16:05-16:25 alpha-cluster structures in 14C and 16O

Speaker

David Palacios Suárez-Bustamante

16:30

14:00

## Nuclear Structure, Spectroscopy and Dynamics: 2

Session | Location: Moho, 16 bis Quai Hamelin 14000 CAEN

14:00-14:25

Dense-matter equation of state and neutron stars: nuclear-physics and multi-messenger constraints

Speaker

Anthea FANTINA

14:25-14:45 Search for double alpha decay

Speaker

Louis Heitz

## 14:45-15:05

Study of exotic nuclei of interest for applied and fundamental nuclear physics with Total Absorption Gamma-ray Spectroscopy (TAGS)

Julien PEPIN

#### 15:05-15:25

Study of proton and neutron contributions to the excitation of the 2+ states in Si isotopes between N=20 and N=28

Speaker

Dr Stephane Grevy

## 15:25-15:45

MIRACLS: Laser spectroscopy in an MR-ToF device and the charge radii of exotic magnesium isotopes

Anthony Roitman

15:45-16:05 Mass Measurements of Exotic Neutron-Deficient Nuclides at IGISOL

Speaker

Dr Zhuang GE

16:05-16:25 Isotopic fission yields of 240Pu around the fission barrier from 2p-transfer reactions

Speaker

Dr Diego RAMOS DOVAL

16:30 14:00

## Nuclear Structure, Spectroscopy and Dynamics: 3

Session | Location: Moho, 16 bis Quai Hamelin 14000 CAEN

14:00-14:25 Entanglement, Complexity and Quantum Computations of Nuclear Many-Body Systems

Speaker

Caroline Elisa Pauline Robin

14:25-14:45 Quantum computation approach to nuclear ground and excited state calculation

Speaker

Paul Stevenson

Nuclear shell model in a quantum computer 14:45-15:05

Speaker

Arnau Rios Huguet

15:05-15:25 A Diagrammatic Monte Carlo approach for nuclear structure and reactions

Speaker

Mr Stefano Brolli

## 15:25-15:45

Improved modelling of fission dynamics with the Time-Dependent Generator Coordinate Method

Speaker

Ngee Wein Lau

Extending the reach of nuclear ab initio calculations via dimensionality reduction techniques

Speaker

Lars Zurek

Emission processes in a self-consistent field 16:05-16:25

Speaker

Alexandru Dumitrescu

17:00

## **Nuclear Structure, Spectroscopy and Dynamics: 4**

Session | Location: Moho, 16 bis Quai Hamelin 14000 CAEN | Convener: Dr Emmanuel CLEMENT

17:00-17:25 Shell model: recent advances from mid-mass to superheavy elements

Speaker

Dr Frederic NOWACKI

17:25-17:45 Probing nuclear structures with fast neutrons at NFS

Speaker

Hemantika Sengar

17:45-18:05 Isomer spectroscopy of heavy nuclei beyond the 126-neutron closed shell at RIBF

Speaker

Anabel Morales López

18:05-18:25 Ab initio calculations of beta-decay half-lives for N=50 neutron-rich nuclei

Speaker

Dr Zhen Li

#### 18:25-18:45

Absolute electromagnetic transition rates in semi-magic N = 50 isotones as a test for  $(\pi g_{9/2})^n$  single-particle calculations.

Speaker

Jan Jolie

18:45–19:05 Exploring the N=20 island of inversion through lifetime measurements

Speaker

Raquel Nicolás Del Álamo

## 19:05-19:25

High-Resolution Gamma-Ray Spectroscopy of \$^{136}\text{Ba}\$: Implications for Neutrinoless Double Beta Decay

Speaker

Jelena Bardak

19:25 17:00

## Nuclear Structure, Spectroscopy and Dynamics: 5

Session | Location: Moho, 16 bis Quai Hamelin 14000 CAEN | Convener: Dr Emmanuel CLEMENT

17:00-17:20 Understanding nuclear isomerism through shell model

Speaker

Bhoomika Maheshwari

17:20-17:40 Penning-trap mass measurements of neutron-rich cobalt isotopes at IGISOL

Speaker

Pauline Ascher

#### 17:40-18:00

Ground state properties of Chromium isotopes from stability to the N=40 Island of Inversion

Speaker

Louis-Alexandre LALANNE

## 18:00-18:20

Direct identification of actinides in multinucleon transfer reactions and effect of secondary processes

Franco Galtarossa

18:20-18:40 Influence of Exceptional Points on Nuclear Structure and Reactions

Speaker

David CARDONA OCHOA

18:40-19:00

Evidence of light multineutron bound systems formation in the 159Tb (p,x)157Dy nuclear reactions

Speaker

Prof. Ihor Kadenko

19:00-19:20 Quadrupole and octupole collectivity in the isotope 106Pd via Coulomb excitation

Speaker

Naomi MArchini

19:20-19:40 Study of \$^{68}\$Ni by means of (d,p) and (p,d) transfer reactions

Speaker

Mr P. Sharma

19:40 17:00

## Nuclear Structure, Spectroscopy and Dynamics: 6

Session | Location: Moho, 16 bis Quai Hamelin 14000 CAEN | Convener: Dr Emmanuel CLEMENT

#### 17:00-17:25

Demystifying the Fusion Mechanism in Heavy-Ion Collisions Leading to the Formation of Superheavy Nuclei

Speaker

Speaker

Michal Kowal

17:25–17:45 Spectroscopy of Transfermium Nuclei

Roderick Clark

## 17:45-18:05

Nuclear Structure Studies of Actinides Using High-Precision Penning-Trap Mass Spectrometry at TRIGA-Trap

Speaker

Tanvir Sayed

#### 18:05-18:25

Synthesis of new elements using dynamic effects of nuclear structure in fusion fission processes

Speaker

Yoshihiro Aritomo

## 18:25-18:45

Investigating the nuclear structure of the heaviest elements with the SHIPTRAP mass spectrometer at **GSI** 

Speaker

Francesca Giacoppo

Towards the limits of stability - new decay data for the lightest mendelevium isotopes 18:45-19:05

Speaker

Shavan Kumar

19:05–19:25 Validation of the mechanism in reaching the island of stability

Mr Kosuke Kawai

## 19:25-19:45

Bayesian inference on nuclear data and neutron star observations for the nuclear equation of state

Speaker

Pietro Klausner

19:45

## **Tuesday 23 September**

14:00

## **Nuclear Structure, Spectroscopy and Dynamics: 7**

Session | Location: Moho, 16 bis Quai Hamelin 14000 CAEN

14:00–14:25 Scalable ab initio approaches

Vittorio Somà

14:25-14:45 Measurement of the Hoyle state radius using double excitation inelastic scattering

Speaker

Ilham DEKHISSI

14:45-15:05 Clustering in \$^{16}\$O investigated with \$^{3}\$He+\$^{13}\$C collisions

Daniele Dell'Aquila

15:05-15:25

Experimental Study of Low-Spin States in \$^{42}\$Ca and \$^{44}\$Ca as a Probe for Shape Coexistence

Speaker

Massimiliano Luciani

15:25-15:45

Quadrupole-octupole-coupled states in 112Cd via Coulomb excitation with AGATA and SPIDER

Speaker

Tommaso La Marca

15:45–16:05 Searching for Alpha-cluster Condensed State in 20Ne

Speaker

Sandro Barlini

16:05–16:25 Study of shape coexistence in Sn isotopes around A=110

Speaker

Giacomo Corbari

16:30

14:00

## Nuclear Structure, Spectroscopy and Dynamics: 8

Session | Location: Moho, 16 bis Quai Hamelin 14000 CAEN

14:00-14:25

Atomic and molecular In-gas-jet laser spectroscopy studies: Revealing the configuration of the K^\pi=8^isomer in ^{254}No with JetRIS

Speaker

Dr Rafael Ferrer

Revealing the configuration of the K^\pi=8^- isomer in ^{254}No by in-gas-jet laser spectroscopy studies with JetRIS

Speaker

Dr Rafael Ferrer and the JetRIS Collaboration

14:45-15:05

Essential steps towards a nuclear clock: decay-fraction measurements of the radiative decay of 229mTh in solid-state hosts

Speaker

Yens Elskens

15:05-15:25 Isomeric Decays in Neutron-Rich \$^{183,184}\$Hf isotopes at the KISS facility

Speaker

Siddharth Doshi

15:25-15:45 Recent results from the NUMEN project

Speaker

Diana Carbone

15:45-16:05

Beta Strength of 92 and 93Rb Measured with the Total Absorption Spectroscopy Technique

Speaker

Amanda Porta

16:05-16:25

Muonic x-ray spectroscopy on La and Lu: measurement techniques and target preparations

Speaker

16:30

14:00

War War Myint Myat Phyo

Nuclear Structure, Spectroscopy and Dynamics: 9

Session | Location: Moho, 16 bis Quai Hamelin 14000 CAEN

14:00-14:20 Insights on fission from the neutronless channel and perspectives

Speaker

Laurent Gaudefroy

14:20-14:40 Fission studies using quasi-free scattering reactions in inverse kinematics

Speaker

JOSE FERNANDO BENLLIURE ANAYA

14:40–15:00 Probing the fluctuation of fission observables

Speaker

David Regnier

15:00-15:20 Fission studies with the nu-Ball2 array

Speaker

Dr Jonathan Wilson

15:20-15:40 Probing the Fission Barrier of \$^{230}\$Ac with the ISOLDE Solenoidal Spectrometer

Speaker

Maria Vittoria Managlia

15:40-16:00 Fission dynamics Investigation using VAMOS++ spectrometer and Second Arm

Speaker

Indu Jangid

16:00-16:20 Fission studies of \$^{197}\$TI

Golda Komalan Satheedas

17:00

16:30

## Nuclear Structure, Spectroscopy and Dynamics: 10

Session | Location: Moho, 16 bis Quai Hamelin 14000 CAEN

17:00–17:25 Ab initio description of monopole resonances

Speaker

Andrea Porro

Probing the Isospin Mixing in the \$^{72}\$Kr Compound Nucleus via GDR γ Decay 17:25-17:45

Speaker

Agnese Giaz

Photographing the Nucleus: Photon-Scattering on its Giant Dipole Resonance 17:45-18:05

Speaker

Norbert Pietralla

18:05–18:25 First study of the PDR via neutron inelastic scattering at GANIL-SPIRAL2/NFS

Speaker

Périne Miriot-Jaubert

18:25-18:45 Studying collective excitations at CCB of IFJ PAN Krakow

Speaker

Maria Kmiecik

18:45-19:05

Evolution of the pygmy dipole resonance in the Sn mass region studied with the Oslo method

Maria Markova

19:05-19:25 Decay of the stretched resonance at 19.6 MeV in 12C investigated via (p,p') reactions

Speaker

Natalia Cieplicka-Orynczak

19:25 17:00

## Nuclear Structure, Spectroscopy and Dynamics: 11

Session | Location: Moho, 16 bis Quai Hamelin 14000 CAEN

17:00-17:25 Highlights from the ISOLDE Solenoidal Spectrometer

Speaker

Andreas Heinz

17:25-17:45

Catching the spin - Isomeric yield ratios by direct ion counting for studies in fission dynamics

Speaker

Stephan Pomp

17:45-18:05 Scission Deformation of the 120Cd/132Sn Neutronless Fragmentation in 252Cf(sf)

Speaker

Alexis FRANCHETEAU

## 18:05-18:25

Isotopic fission fragments yields in the Thorium region produced in inverse-kinematics with a 232Th beam.

Alex Cobo Zarzuelo

18:25-18:45 Investigation of Shell Effect Damping in Nuclear Fission Using VAMOS and PISTA

Speaker

Theodore Efremov

18:45-19:05

HFB3+CHICON: Large-scale PES generation with an axial HFB solver for structure and fission studies.

Speaker

Junah Newsome

19:05–19:25 Mapping the new asymmetric fission island with the R3B/SOFIA setup

Speaker

Dr Pierre Morfouace

19:25

## **Thursday 25 September**

14:20

## **Nuclear Structure, Spectroscopy and Dynamics: 12**

Session | Location: Moho, 16 bis Quai Hamelin 14000 CAEN

14:20-14:45 Recent advances from ab initio Self-Consistent Green's function computations of nuclei

Speaker

Carlo Barbieri

14:45–15:05 Nuclear moments of isomeric states around 132Sn

Speaker

Georgi Georgiev

15:05-15:25 Octupole Correlations in the neutron-deficient \$^{110}\$Xe nucleus

Speaker

Illana Sison Andres

15:25–15:45 Seniority scheme for j=9/2 orbitals

Speaker

Zsolt Podolyak

## 15:45-16:05

From Shell Gaps to Shape Coexistence: Probing the Island of Inversion N=40 through the \* decay of 67Mn

Speaker

Victoria Vedia

16:05-16:25 Investigating shape transition in neutron-rich Zr isotopes

Speaker

**Guillem Tocabens** 

16:25-16:45

Study of Shape coexistence and Triaxial deformation in Cr isotopes via lifetime measurements

Speaker

Julgen Pellumaj

16:5014:20

## Nuclear Structure, Spectroscopy and Dynamics: 13

Session | Location: Moho, 16 bis Quai Hamelin 14000 CAEN

14:20-14:45

Advancements in Gamma-ray Spectroscopy: Expanding Sensitivity and Experimental Capabilities

Speaker

Daniele Mengoni

#### 14:45-15:05

Exploring the Reaction 64-Ni + 238-U and the Measurement of Isomeric State Lifetimes of Target-Like Transfer Products

Speaker

Mrs Jennifer Brigitte Cipagauta Mora

15:05-15:25

Sub barrier transfer reactions and search for signatures of a nuclear Josephson effect with PRISMA+AGATA: the 60Ni+116Sn system

Speaker

Dr Lorenzo Corradi

15:25-15:45 Generalised Pandya relations for the neutron-proton interaction

Speaker

Piet Van Isacker

### 15:45-16:05

Measurements of the reaction cross sections of neutron-rich Sn isotopes at the R\$^3\$B setup

Eleonora Kudaibergenova

### 16:05-16:25

Theoretical nuclear reaction analysis for the ISOLDE Superconducting Recoil Separator (ISRS)

Fatemeh Torabi

#### 16:25-16:45

Theory Predictions of Exotic Nuclear Symmetries and Spontaneous Symmetry Breaking: Identification Methods

Speaker

Irene Dedes

16:50 14:20

## Nuclear Structure, Spectroscopy and Dynamics: 14

Session | Location: Moho, 16 bis Quai Hamelin 14000 CAEN

14:20-14:45 Isolde Tape Station and future at SPES

Speaker

giovanna benzoni

## 14:45-15:05

High resolution studies of multinucleon transfer reactions in the 206Pb+118Sn system from above to below the Coulomb barrier

Speaker

Suzana Szilner

## 15:05-15:25

Towards the synthesis of new heavy nuclei: multi-nucleon transfer reactions with 136Xe + 238U

Speaker

Jonathan Bequet

15:25-15:45 Update of the summation calculations for reactor antineutrino spectra

Speaker

Magali Estienne

## 15:45-16:05

Transfer and breakup reactions of neutron-rich carbon isotopes described within few-body models

Speaker

Pedro Punta

16:05-16:25

New perspectives to study Neutronrich, EXotic, heavy nuclei produced in multinucleon Transfer reactions with NEXT

Speaker

Julia Even

## 16:25-16:45

Analysis of kinetic energy dissipation for the production of neutron-rich nuclei in multi-nucleon transfer reaction

Speaker

Kohta Nakajima

16:50