

Frontiers in Gamma Ray Spectroscopy (FIG 2025), Tata Institute of Fundamental Research, Mumbai

Scientific Program

Venue: Homi Bhabha Auditorium

9th March 2025

Inaugural session

08:00 – 09:00 Registration

09:00 – 09:20 Opening Remarks

Time	Speaker	Title
09:20 – 10:00	Giacomo de Angelis	The AGATA experimental campaign: High resolution gamma spectroscopy with MNT reactions

10:00 – 10:30 High Tea

Session I

10:30 – 11:00	Navin Alahari	Probing the structure around the “heaviest” halo and “heavy” nuclei
11:00 – 11:30	Rajarshi Raut	Of Digitizers, Doppler & Dynamics: A Few Things that We Do at Our Place
11:30 – 11:50	Subhendu Rajbanshi	Symmetry and Nuclear Structure: Recent Evidences of Critical Point Symmetries in Atomic Nuclei
11:50 – 12:10	Ajay.Y. Deo	Various facets of nuclear structure around the ^{208}Pb region
12:10 – 12:30	Ananya Kundu	Probing intrinsic cluster-configuration of the ^9Be nucleus: an indirect approach

12:30 – 14:00 Lunch

Session II

14:00 – 14:30	Indranil Mazumdar	Studies in Nuclear Structure & Nucleosynthesis using low and Medium Proton Beam
14:30 – 14:50	Abhijit Bisoi	Interplay between single particle and collective mode of excitations in ^{40}K and ^{43}Ca
14:50 – 15:10	Somnath Nag	Hindered isomeric transitions and favoured collective phenomena in $A \sim 90$ region
15:10 – 15:30	Tarkeshwar Trivedi	Investigation of Exotic Nuclear Shapes and Correlations in Transitional Nuclei
15:30 – 15:50	Indu Bala	Nuclear phase transitions at $N = 34$

15:50 – 16:20 Tea

Session III

16:20 – 16:40	Sanjay Kumar Chamoli	Octupole correlations in ^{118}Xe ; A fresh look via lifetime measurement
16:40 – 17:00	Soumya Bagchi	Isoscalar Giant Resonances in deformed Rare-Earth Nuclei: Revealing a New Compression Mode in Quadrupole Resonance

17:00 – 18:30 Discussion

10th March 2025

Session I

09:00 – 09:40	Zsolt Podolyák	The NUSTAR project at FAIR: status and opportunities
09:40 – 10:10	Biswarup Das	The role of two-body interaction in the structure of nuclei in the vicinity of ¹⁰⁰Sn: First physics results using DEcay SPECtroscopy at FAIR-Phase0
10:10 – 10:40	Partha Chowdhury	Exploring shapes of very-neutron-rich isomeric fragments of ¹⁹⁸Pt with GRETINA
10:40 – 11:00	Deepak Kumar	Unravelling Multinucleon Transfer reactions via α/γ-decay spectroscopy: A doorway to access Terra Incognita

11:00 – 11:30 Tea

Session II

11:30 – 12:10	Bo Cederwall	Precision measurements of excited-state lifetimes and energies as a probe of rare nucleon correlations far from stability
12:10 – 12:40	Sarmishtha Bhattacharyya	Probing yrast and near-yrast states in nuclei using INGA at VECC
12:40 – 12:55	Massimo Venaruzzo	New digitizers from CEAN

13:00 – 14:00 Lunch

Session III

14:00 – 14:30	Sujit K. Tandel	Metastable states in spherical and deformed nuclei (Zoom-talk)
14:30 – 15:00	Somsundar Mukhopadhyay	Recent findings and possibilities in structures of rare-earth nuclei using low-mass projectiles
15:00 – 15:20	Akashrup Banerjee	A new low-energy, high-current accelerator in India: FRENA
15:20 – 15:35	Anindita Karmakar	Enhanced electric dipole transition strengths in ¹⁰⁰Ru
15:35 – 15:50	Vishal Malik	Multi quasiparticle-hole excitations in odd-odd and even-even nuclei near A ~ 90

16:10 – 17:00 Tea

Session IV (Public lecture by Pawel Moskal) 17:00 - 18:00

Recent Advances in Gamma-ray Imaging (Fundamentals to Applications)

(Jagiellonian University, Kraków, Poland)

18:00 – 18:30 High Tea

18:30 – 19:30 Discussion

11th March 2025

Session I

09:00 – 09:30	Pawel Napiorkowski	The Heavy Ion Laboratory at the University of Warsaw- the next 30 years ahead
09:30 – 10:00	Bhoomika Maheshwari	Theoretical efforts for nuclear isomerism
09:30 – 10:30	Sushil Sharma	Unlocking the potential of positronium physics through precision studies with J-PET
10:30 – 10:50	Jehaan Nicholson	EDUCATION - RESEARCH, NUCLEAR PRODUCTS
10:50 – 11:00	ACEDS	Short Display by ACEDS

11:00 – 11:30 Tea

Session II

11:30 – 12:00	Nirupama Sensharma	Triaxiality and shape coexistence in $0\nu\beta\beta$-decay candidates
12:00 – 12:30	Piku Dey	Octupole collectivity in zirconium isotopes around $A \sim 90$ region
12:30 – 13:00	P. Arumugam	Quantum Computing relevant to Atomic Nuclei

13:00 – 14:00 Lunch

Session III

14:00 – 16:00 Poster session

15:50 – 16:20 Tea

Session IV (Zoom-talk)

16:30 – 17:00	Dimiter Balabanski	Nuclear Photonics
17:00 – 17:30	Haik Simon	The Super-FRS project and first physics with R3B and NUSTAR
17:30 – 18:00	Jehengir Sheikh	Microscopic investigation of wobbling motion in atomic nuclei

19:00 – 21:00 Conference Dinner

12th March 2025

Session I

09:00 – 09:30	Tumpa Bhattacharjee	A journey from spherical shape to exotic symmetry breaking in a pyramidal nucleus– Role of Fast timing scintillator and high efficiency Clover arrays
09:30 – 10:00	Rajesh Pratap Singh	Recent developments in nuclear structure studies at IUAC
10:00 – 10:30	Suresh Kumar	Triaxiality of Gamma Bands in Nuclear Landscape
10:30 – 10:50	Vivek Parkar	Nuclear reaction studies with INGA@TIFR
10:50 – 11:00	Srabasti Banerjee	Oral Presentation for Best Poster

11:00 – 11:30 Tea

Session II

11:30 – 12:00	Vandana Nanal	Exploring nuclear structure with PARIS
12:00 – 12:20	Deepika Choudhury	Competition between the neutron-proton pair break-up for nuclei around $Z \sim 82$ shell closure
12:20 – 12:40	Anagha Chakraborty	Probing deep into the fission dynamics through Fission Fragment Spectroscopy
12:40 – 13:00	Prakash Raut	Collective enhancement of nuclear level density and its significance in radiative capture

13:00 – 14:00 Lunch

Session III

14:00 – 14:30	Ashish Jha	Radiation Detectors in Nuclear Medicine: A Review of Performance Evaluation, Recent Advancements, and Future Perspectives
14:30 – 14:50	Manoj Kumar Sharma	Measurement of Recoil and Spin Distributions Using Off-Beam and In-Beam Gamma-Ray Spectroscopy: A Study Relevant to Pre-Compound Emission
14:50 – 15:10	Rhine Kumar A.K.	Nuclear Structure studies with Chebyshev Shape Parametrization
15:10 – 15:30	Ashok Kumar Jain	Summary Talk
15:30 – 15:40		Concluding Remark

15:40 – 16:00 Tea