

Frontiers in Gamma Ray Spectroscopy FIG18



Monday, 12 March 2018 - Wednesday, 14 March 2018

TIFR, Mumbai

Scientific Programme

12 -14 March 2018

Inaugural Session

12 March 2018

9:30 - 9:50 Welcome Address

9:50 - 10:30 First spectroscopy of ^{40}Mg

P. Fallon (LBNL)

Tea

10:30 - 11:00

Session 1

11:00 - 11:30 Lifetime measurements for sensitive tests of nuclear models in the collective regime

Bo. Cederwall (KTH)

11:30 - 12:00 Probing the structure of isotopically identified fission fragments@VAMOS

A. Navin (GANIL)

12:00 - 12:30 Systematics of Band Termination at High-Spin in N~90 Nuclei: How Robust and Pure Are These Special States?

M. Riley (FSU)

12:30 - 13:00 Seniority and Generalized Seniority: How far can we stretch these quantum numbers?

A.K. Jain (IITR)

Lunch

13:00 - 14:00

Session 2

14:00 - 14:30 Evolution of collectivity and symmetry in nuclei

S. Muralithar (IUAC)

14:30 - 15:00 Fission Fragment Spectroscopy: Challenges and opportunities

D.C. Biswas (BARC)

15:00 - 15:30 Probing nuclei near shell closure using alpha beam

S. Bhattacharya(VECC)

15:30 - 16:00 Nuclear symmetries: critical observation through measurement of short lifetimes

P. Das (IIT BombaY)

16:00 - 16:20 High Spin Spectroscopy: Microscopic Theory and Perspectives

C.R. Praharaj (IOPB)

Poster Session

16:20 - 19:00

Session 3

13 March 2018

9:00 - 9:30 Isomers from multi-nucleon hole configurations near doubly-magic 208Pb

S. Tandel (CEBS)

9:30 - 10:00 Nuclear structure studies in the vicinity of shell closure

S. Sihotra (PU)

Tea Session

10:00 - 10:15

Session 4

10:15 - 10:45 FAIR and NUSTAR - Status and opportunities

J. Gerl (FAIR/GSI)

10:45 - 11:15 Nuclear structure studies with brilliant gamma beams at ELI-NP

D.L. Balabanski (ELINP)

11:15 - 11:45 CAGRA Project at RCNP, Osaka University

E. Ideguchi (RCNP)

11:45 - 12:15 Nuclear physics studies at the Legnaro National Laboratories

F. Recchia (Univ. Padova)

12:15 - 12:45 Beta-delayed neutron emitters and advances in fast neutron spectroscopy

P. Chowdhury (UM Lowell)

12:45 - 13:00 Short presentation

Lunch

13:00 - 14:00

Parallel Session 1 (Venue AG 66)

14:00 - 14:15 Alternating parity bands in ²¹⁶Fr

A.Y. Deo (IITR)

14:15 - 14:30 Multiple facets of level structure in a shape-transitional nucleus

S. Mukhopadhyay (BARC)

14:30 - 14:45 Investigation of the level structure of ^{29}Al at high spin

A. Chakraborty (Visva Bharati)

14:45 - 15:00 Exploring nature of collectivity in Lu nuclei with mass $A \sim 165$ via lifetime measurements

S. Chamoli (DU)

Parallel Session 2 (AG69)

14:00 - 14:15 Energy Dependent Spin Distribution Measurements in $^{16}\text{O}+^{159}\text{Tb}$ System

B.P. Singh (AMU)

14:15 - 14:30 Investigation of fragment capture reaction mechanism involving weakly bound ^7Li

S. Pandit (BARC)

14:30 - 14:45 Proton capture cross section measurements at astrophysical relevant energies

T. Trivedi (GG Univ)

14:45 - 15:00 Ancillary detectors for gamma spectroscopy

A. Jhingan (IUAC)

15:00 - 15:15 Study of cross-talk in a planar HPGe strip detector

C.S. Palshetkar (TIFR)

Tea

15:15 - 15:30

Session 5

15:30 - 16:00 Systematic study of fission fragment de-excitation depending on compound system and excitation energy

Andreas OBERSTEDT (ELI-NP)

16:00 - 16:30 Measurement of gamma rays from both hadronic and electromagnetic decay of giant resonance of ^{12}C and ^{16}O

M. Sakuda (Okayama Univ)

16:30 - 17:00 Search for Double Beta Decay in ^{94}Zr

V. Nanal (TIFR)

17:00 - 17:30 Nuclear Deformation and the search for neutrinoless double beta decay: A case study of ^{76}Ge

D. AYANGEAKAA (US NA)

Poster Session

17:30 - 19:00

Session 6

14 March

9:00 - 9:30 Of Signals, Shapes and Shells: Nuclear Structure Studies at the Consortium

S. S. GHUGRE (IUC-CSR-KC)

9:30 - 10:00 Detector requirements and simulation for HISPEC/DESPEC experiments at Super-FRS

S. Saha (GSI)

Tea

10:00 - 10:15

Session 7

10:15 - 10:45 Wobbling Motion in A130 Nuclei

U. Garg (NDU)

10:45 - 11:15 Shape evolution in neutron-rich Zr nuclei

P. Singh (CEA)

11:15 - 11:45 Consistent description of shell gaps and deformed states around ^{16}O and ^{40}Ca

Yutaka UTSUNO

11:45 - 12:15 Studies of extremely deformed nuclei near ^{40}Ca

Piotr BEDNARCZYK (Krakow)

12:15 - 12:45 Ab initio shell-model study of nuclear observables

P.C. Srivastava (IITR)

12:45 - 13:00 Short presentation

Lunch

13:00 - 14:00

Session 8

14:00 - 14:30 Reinforce in low and intermediate states of the beta stable Ba and Xe nuclei near N=82 shell closure

S. Kumar (DU)

14:30 - 15:00 Evidence of gamma-instability in ^{124}Te

H.P. Sharma (BHU)

15:00 - 15:30 An overview of recent experiments at VECC-INGA array

A. Goswami (SINP)

15:30 - 15:40 Concluding Remark

Tea

15:40 - 16:00

NSF Colloquium

16:00 - 17:00 Gamma-Ray Spectroscopy and the Ever-Fascinating World of the Atomic Nucleus

M. Riley(FSU)