

# **Frontiers in Gamma Ray Spectroscopy FIG18**



**Monday 12 March 2018 - Wednesday 14 March 2018**

**TIFR, Mumbai**

## **Conference Scientific Programme**

## Inaugural Session

12 March 2018

9:30 - 9:50 Welcome Address

9:50 - 10:30 First spectroscopy of 40Mg

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  $^{216}\text{Fr}$

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  $^{29}\text{Al}$  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  $^7\text{Li}$

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  $^{12}\text{C}$  and  $^{16}\text{O}$

M. Sakuda (Okayama Univ)

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

V. Nanal (TIFR)

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

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  $^{16}\text{O}$  and  $^{40}\text{Ca}$

Yutaka UTSUNO

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

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  $^{124}\text{Te}$

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)