

## *Scientific Programme*

**Monday, December 2, 2013**

Venue: Nabhikiya Urja Bhawan Auditorium, Anushakti Nagar

### **Session I**

**9:00 Hrs – 10:00 Hrs**

**10:00 Hrs – 10:30 Hrs**

#### **Inauguration**

D. R. Chakrabarty (BARC)

Electromagnetic Transition Between  
Molecular Resonances in  $^8\text{Be}$

#### **High Tea**

### **Session II**

*(Chairperson: Arun K. Jain )*

**11:15 Hrs – 11:45 Hrs**

Martin Freer (Birmingham, UK)

Exotic clusters in light nuclei

**11:45 Hrs – 12:15 Hrs**

Timo Lähde (FZ-Jülich, Germany)

The Hoyle state in nuclear Lattice EFT

**12:15 Hrs – 12:45 Hrs**

S. Bhattacharya (VECC, Kolkata)

Decay of Hoyle state

#### **Lunch**

### **Session III**

*(Chairperson:D. K. Srivastava )*

**14:00 Hrs – 14:30 Hrs**

N. D. Dang (RIKEN)

Viscosity-from air to hot nuclei

**14:30 Hrs – 15:00 Hrs**

Bedangadas Mohanty (NISER)

Exploring the QCD phase diagram  
through high energy nuclear collisions at RHIC

**15:00 Hrs – 15:30 Hrs**

T. K. Nayak (VECC, Kolkata)

Exploring the QCD Plasma at LHC

**15:30 Hrs – 16:00**

**Tea (Theses posters to be put up)**

### **Poster Session 1**

**(A1-40, B1-40, C1-3, D1-10, G1-28, T1-19)**

**Tuesday, December 3, 2013**

Venue: Nabhikiya Urja Bhawan Auditorium, Anushakti Nagar

**Session IV**

*(Chairperson: Ashok K. Jain)*

<b>09:30 Hrs – 10:00 Hrs</b>	D. Balabanski (Romania) TBA
<b>10:00 Hrs – 10:30 Hrs</b>	Rudrajyoti Palit (TIFR) Recent results from digital INGA at BARC TIFR Pelletron Linac Facility
<b>10:30 Hrs – 11:00 Hrs</b>	S. Mukhopadhyay (BARC) Nuclear triaxiliaty in $A \approx 160-170$ mass nuclei
<b>11:00 Hrs – 11:30 Hrs</b>	<b>Tea</b>

**Session V**

*(Chairperson: Alok Chakrabarti)*

<b>11:30 Hrs – 12 Noon</b>	Abhay Deshpande (BNL) The Science and prospects of future electron ion collider
<b>12 Noon – 12:30 Hrs</b>	T. Motobayashi (RIKEN) Nuclear structure studies of very neutron- rich nuclei at RIBF
<b>12:30 Hrs – 13:00 Hrs</b>	T. Suda (Tohoku Univ.) Electron scattering for exotic nuclei-The SCRIT electron scattering facility

**Lunch**

**Session VI**

*(Chairperson:S.K.Gupta)*

<b>14:00 Hrs – 14:30 Hrs</b>	Nora Brambilla (TU-Munich) TBA
<b>14:30 Hrs – 15:00 Hrs</b>	P. C. Vinodkumar (SP Univ.) Heavy flavour hadron spectroscopy – an overview
<b>15:00 Hrs – 15:30 Hrs</b>	D. Phillips (Univ. Ohio) Describing halo nuclei using effective Field theory

**Tea**

**POSTER SESSION 2**

**(A41-80, B41-80, D11-20, E1-20, T1-19)**

**Wednesday, December 4, 2013**

Venue: Nabhikiya Urja Bhawan Auditorium, Anushakti Nagar

**Session VII**

*(Chairperson: S.B. Patel)*

**09:30 Hrs – 10:00 Hrs**

A. Navin (GANIL)

Towards the next frontier of large isospin and spin using beams far from dripline

**10:00 Hrs – 10:30 Hrs**

Kate Jones (Univ. Tennessee)

Nuclear structure of neutron-deficient and neutron-rich tin isotopes studied through direct reactions

**10:30 Hrs – 11:00 Hrs**

Subinit Roy (SINP)

A systematic analysis of radiative capture reaction  $^{13}\text{C}(p,\gamma)$

**11:00 Hrs – 11:30 Hrs**

S. Freeman (Manchester)

Constraining the neutrinoless double beta-decay matrix elements using transfer-reaction measurements

**11:30 Hrs – 12 Noon**

**Tea**

**Session VIII**

*(Chairperson: Y. K. Gambhir)*

**12:30 hrs – 13:00 hrs**

W. Catford (Surrey)

The neutron magic numbers  $N=16, 20$  and  $28$  for neutron rich exotic nuclei, as probed by nucleon transfer

**12:30 Hrs – 13:00 Hrs**

B. Behera

Search for an effect of shell closure and role of  $N/Z$  on nuclear dissipation via neutron-multiplicity measurements

**13:00 Hrs – 13:30 Hrs**

Bijay Agrawal

Density content of symmetry energy from nuclear ...

**Lunch**

**Session IX**

*(Chairperson: B. Banerjee)*

**14:30 Hrs – 15:00 Hrs**

B.K. Jain

Role of near-threshold resonances in intermediate energy nuclear physics

**15:00 Hrs – 15:30 Hrs**

Neelima G. Kelkar

Opportunities and problems in determining proton and light nuclear radii

**15:30 Hrs – 16:00 Hrs**

K.B. Vijay Kumar

Hyperon polarizabilities in Compton scattering

**Tea**

**POSTER SESSION 3**

(A81-130, B81-120, G 29-58, T1-19)

**18:30 hrs**

**High Tea**

**Evening Lecture:** Professor S. M. Chitre (Is there intelligent life elsewhere in the universe ?)

**Thursday, December 5, 2013**

Venue: Nabhikiya Urja Bhawan Auditorium, Anushakti Nagar

**Session X**

*(Chairperson: Bhartendu K. Singh)*

<b>09:30 Hrs – 10:00 Hrs</b>	Shikma Bressler (Weizmann Inst.) Modern gas-avalanche radiation detectors: from innovations to applications
<b>10:00 Hrs – 10:30 Hrs</b>	P. Sugathan Neutron detection array for fusion-fission studies at IUAC
<b>10:30 Hrs – 11:00 Hrs</b>	N. Madhavan (IUAC, New Delhi) TBA

**Tea**

**Session XI**

*(Chairperson: P.C.Sood)*

<b>11:30 Hrs – 12 Noon</b>	Ritesh Kshetri (Sidho-KanhoBirsUniv.) A novel approach for modeling the cluster detector and the SPI spectrometer
<b>12 Noon – 12:30 Hrs</b>	B. K. Nayak (BARC, Mumbai) Neutron-induced Fission Cross Sections of Short-lived Actinides via the Surrogate Reaction Method

**Lunch**

**POSTER SESSION 4**

**(B121-147, D21-31, E21-63, F1-18, G59-78, T1-19)**

**Tea**

**Session XII**

*(Chairperson: Maitreyee SahaSarkar)*

<b>16:00 Hrs – 17:30 Hrs</b>	<b>Theses talks</b>
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**Friday, December 6, 2013**  
Venue: Homi Bhabha Auditorium, TIFR

**Session XIII**

*(Chairperson: R.S. Bhalerao)*

<b>10:00 Hrs – 10:30 Hrs</b>	Heiko Scheit (FZ-Juelich) TBA
<b>10:30 Hrs – 11:00 Hrs</b>	M.V.N. Murthy Three's company: Efimov effect
<b>11:00 Hrs – 11:30 Hrs</b>	<b>Tea</b>
<b>11:30 Hrs – 13:30 Hrs</b>	<b>Pelletron session</b>

**Lunch**

**Session XIV**

*(Chairperson: S. K. Singh)*

<b>14:30 Hrs – 15:00 Hrs</b>	N. K. Mondal India-based neutrino Observatory (INO) Project
<b>15:00 Hrs – 15:30 Hrs</b>	H. T. Wong Low energy neutrino and dark matter physics with sub-keV Germanium detectors

**Tea**

**16:00 Hrs – 17:00 Hrs**

**Session XV**

*(Chairperson: S. Kailas)*

Presentation of the Best thesis Prize

**Summary talks**

**Concluding remarks by Vivek M. Datar**