

**Monday 28<sup>th</sup> May 2018**

**Session 1: Future RIB facilities**

**09:00 – 11:20**

**09:00 Introduction (Organizing Committee)**

*Chair: M. Harakeh*

**09:10 N. ALAHARI** (GANIL - Caen)  
Status of the GANIL-SPIRAL2 facility

**09:35 P. GIUBELLINO** (GSI and FAIR)  
Status of the FAIR facility

**10:00 A. GARNSWORTHY** (TRIUMF)  
Status of the ARIEL facility

**10:25 M. BORGE** (CSIC)  
Status of the ISOLDE facility

**10:50 L. POPESCU** (SCK CEN)  
ISOL@MYRRHA and its first phase implementation at the Proton Target Facility

**11:05 P. RUSSOTTO** (INFN)  
Perspectives of the new Fragment In-flight Separator at INFN-LNS

*11:20 - 11:40 Coffee break*

**Session 2: Nuclear structure far from stability**

**11:40 – 13:15**

*Chair: W. Korten*

**11:40 B. FORMAL** (IFJ PAN)  
Experimental studies of exotic nuclei in deep-inelastic reactions

**12:05 D. VERNEY** (IPN Orsay)  
Nuclear structure investigations in the vicinity of  $^{78}\text{Ni}$  using BEDO@ALTO and AGATA@GANIL

**12:30 J. DIAZ CORTES** (University of Santiago de Compostela)  
Systematic measurements of knockout and total reaction cross sections in medium mass nuclei

**12:45 A. GOTTARDO** (INFN Legnaro)  
Beta-delayed neutron emission to study  $^{52,53}\text{Ca}$

**13:00 D. ATANASOV** (KU Leuven)  
Mass measurements of short-lived nuclei using the ISOLTRAP spectrometer

*13:15 - 16:00 Lunch*

**Session 3: Dynamics and Thermodynamics of exotic nuclear systems**

**16:00 – 17:45**

*Chair: H. Lenske*

**16:00 D. LACROIX** (IPN Orsay)

Pairing and quantum fluctuation effects in low energy nuclear reactions

**16:25 S. YENNELLO** (Texas A & M University)

Experimental investigations of the nuclear equation-of-state

**16:50 B. GNOFFO** (INFN Catania)

Isospin influence on the Intermediate Mass Fragments dynamical emission at Fermi energy and at low energy

**17:05 B. SCHUETRUMPF** (TU Darmstadt / GSI)

Clustering in pre-compound nuclei in the TDDFT framework

*17:20 - 18:00 Coffee break*

**Session 4: Direct Reactions with radioactive beams**

**18:00 – 19:30**

*Chair: K. Rüsager*

**18:00 P. THIROLF** (LMU München)

$^{229}\text{mTh}$  and its application as a nuclear clock

**18:25 T. KROELL** (Technische Universität Darmstadt)

First results from HIE-ISOLDE

**18:50 N. ORR** (LPC Caen)

Direct reactions with RIB at fragmentation facilities

**19:15 Y. BLUMENFELD** (IPN Orsay)

Transfer reactions induced with  $^{56}\text{Ni}$ : np pairing and N=28 shell closure

End 19:30

*19:30 Welcome cocktail*

*Dinner*

## Tuesday 29th May 2018

### Session 5: Future RIB facilities

09:00 – 10:55

*Chair: A. Maj*

**09:00 P. MANTICA** (MSU / FRIB)  
Status of the Facility for Rare Isotope Beams

**09:25 G. PRETE** (INFN LNL)  
Status of the SPES facility

**09:50 K. TANAKA** (KEK)  
RIB facilities in Asia Pacific

**10:15 D. GHITA** (ELI-NP/IFIN-HH)  
Extreme Light Infrastructure - Nuclear Physics (ELI-NP): Status and Perspectives

**10:40 H. SAVAJOLS** (GANIL - Caen)  
Physics Opportunities With The Super Separator Spectrometer (S3) At The SPIRAL2 Facility

*10:55 - 11:15 Coffee break*

### Session 6: Instrumentation, electronics and data acquisition systems

11:15 – 13:15

*Chair: R. Raabe*

**11:15 A. GADEA** (IFIC Valencia)  
AGATA array at the European RIB facilities

**11:40 T. MARCHI** (INFN LNL)  
Challenging the extremes of the Nuclear Chart with an Active Target

**12:05 H. SIMON** (GSI)  
Modern multi-purpose data acquisition systems

**12:30 A. MAJ** (IFJ Kraków)  
PARIS gamma calorimeter: status of the project and first experimental results

**12:45 B. MAUSS** (GANIL Caen)  
Commissioning of the ACTAR TPC

**13:00 G. POLITI** (INFN Catania)  
Recent and future developments of the CHIMERA and FARCOS arrays for neutron and gamma detection

*13:15 - 15:00 Lunch*

## Special session ENSAR2

15:00 - 16:00

**15:00 M. HARAKEH** (KVI Groningen/GANIL Caen)

Status of the ENSAR2 project

**15:20 M. LEWITOWICZ** (GANIL Caen)

Beyond ENSAR2

**15:35 -16:00**

Open discussion (moderator M. Harakeh)

### Session 7: Nuclear structure far from stability

16:00 – 17:35

*Chair: G. Neyens*

**16:00 H. LENSKE** (Justus-Liebig Universität Giessen)

Hyperons and resonances in nuclear matter

**16:25 T. SAITO** (GSI)

Hypernuclear spectroscopy with heavy ion beams; the past, present and future

**16:50 G. BENZONI** (INFN Milano)

Evolution of deformation in Ba isotopic chain

**17:05 S. BISWAS** (GANIL - Caen)

Prompt-delayed gamma-ray spectroscopy of neutron-rich Sb isotopes using AGATA, VAMOS++ and EXOGAM

**17:20 S. LEONI** (INFN & University of Milano)

Search for shape isomerism in different regions of the nuclear chart by the use of stable and radioactive ion beams

*17:35 - 17:50 Coffee break*

### Session 8: Nuclear astrophysics

17:50 – 18:55

*Chair: M. Pfutzner*

**17:50 A. ARCONES** (Technische Universität Darmstadt)

Nucleosynthesis in neutron star mergers

**18:15 A. FANTINA** (GANIL Caen)

Nuclear Physics input for understanding neutron stars.

**18:40 B. RUBIO** (CSIC-Univ. Valencia)

First results on the beta decay of the  $T_z=2$  nucleus  $^{64}\text{Se}$

*End 18:55*

*Dinner*

## Wednesday 30th May 2018

### Session 9: Transuranium nuclei & future RIB facilities

09:00 – 11:25

*Chair: P. Thirolf*

**09:00 C. DUELLMANN** (University of Mainz and GSI)

News from the chemistry of the heaviest elements around flerovium, element 114

**09:25 J. EVEN** (University of Groningen)

Recent results on exotic transuranium nuclei

**09:50 R. HERZBERG** (University of Liverpool)

Spectroscopic studies of heavy and super-heavy nuclei

**10:15 M. ITKIS** (JINR Dubna)

Recent results and future prospects on SHE studies at FLNR

**10:40 A. KARPOV** (JINR Dubna)

Production of neutron-rich heavy and superheavy nuclei in multinucleon transfer reactions

**10:55 E. VERSTRAELEN** (KU Leuven)

Laser Ionization Spectroscopy of  $^{225-229}\text{Ac}$

**11:10 R. BARK** (iThemba Labs)

Latest Developments of The South African Isotope Facility

*11:25 - 11:45 Coffee break*

### Session 10: Applications to other fields; Production and manipulation of RIB

11:45 – 13:05

*Chair: F. Farget*

**11:45 U. KOESTER** (ILL Grenoble)

Radionuclides in medicine

**12:10 W. CATFORD** (University of Surrey)

Recent results for direct reactions with RIB at ISOL facilities

**12:35 T. COCOLIOS** (KU Leuven)

Radioisotopes for medicine: First collection at CERN MEDICIS

**12:50 R. HARDING** (CERN)

Beta-detected Nuclear Magnetic Resonance: From nuclear physics to biology

*13:05 - 14:00 Lunch*

EXCURSION

**18:30 - 20:00** Poster session

*Dinner*

## Thursday 31st May

### Session 11: Production and manipulation of RIB

09:00 – 10:10

Chair: P. Mantica

**09:00 P. VAN DUPPEN** (KU Leuven)  
Recent developments at ISOL-based RIB facilities

**09:25 N. LECESNE** (GANIL Caen)  
REGLIS3 at S3 for the production and laser spectroscopy of high purity refractory RIBs

**09:40 C. PARASCANDOLO** (INFN Napoli)  
The RIB in-flight facility EXOTIC at INFN-LNL

**09:55 P. UJIC** (GANIL Caen)  
Performances of the EBIS debuncher

*10:10 - 10:30 Coffee break*

### Session 12: Nuclear structure far from stability

10:30 – 12:55

Chair: F. Azaiez

**10:30 F. NOWACKI** (IPHC)  
Shell Model far From Stability: Islands Of Inversion Mergers

**10:55 R. LICA** (IFIN HH)  
Results from the Isolde Decay Station

**11:20 V. SOMA** (CEA IRFU Saclay)  
Extending ab-initio calculations towards heavy nuclei

**11:45 R. REIFARTH** (Goethe Universität Frankfurt)  
(p, $\gamma$ ) experiments in the ESR

**12:10 S. LUKYANOV** (JINR)  
Fragmentation of the Secondary Radioactive beams of  $^8\text{B}$ ,  $^7\text{Be}$  and  $^6\text{Li}$  ions

**12:25 O. POLESHCHUK** (KU Leuven)  
The SpecMAT active target: studies of exotic nuclei via transfer reactions and gamma-ray spectroscopy in high-intensity magnetic fields

**12:40 A. CAMAIANI** (Univerisità degli Studi and INFN di Firenze)  
Study of well-selected evaporation chains in the decay of  $^{25}\text{Mg}$ . Results and perspective with light radioactive beams.

*12:55 - 14:00 Lunch*

**Special Joint session NUSTAR – EURISOL-DF**

**14:00 - 16:40**

*Chairs: Sydney Galès & Christoph Scheidenberger*

**14:00 W. KORTEN** (DPhN/Irfu/CEA Saclay)

Status of NUSTAR

**14:20 M. LEWITOWICZ** (GANIL Caen)

Status of EURISOL-DF

**14:40 B. RUBIO** (CSIC-Univ. Valencia)

Physics with RIB at low and high energy: synergies with stopped beams

**15:05 T. KROELL** (TU Darmstadt)

Physics with RIB at low and high energy: synergies with fast & post-accelerated beams

**15:30 A. GADEA** (IFIC Valencia)

Travelling Instrumentation

**15:55**

Round table

**Session 13: Fundamental interactions**

**16:40 – 17:30**

*Chair: P. Van Duppen*

**16:40 N. SEVERIJNS** (KU Leuven)

Fundamental interaction experiments with Radioactive Ion Beams

**17:05 J. SUHONEN** (University of Jyväskylä)

Nuclear decays and the strength of the weak axial coupling

*17:30 - 17:50 Coffee break*

**Session 14: Nuclear structure far from stability**

**17:50 – 19:25**

*Chair: W. Walters*

**17:50 JJ VALIENTE DOBON** (INFN – LNL Legnaro)

High resolution gamma spectroscopy of exotic nuclei using multinucleon transfer reactions

**18:15 J. HOLT** (TRIUMF Vancouver)

Nuclear Theory for Future Rare-Isotope Beam Facilities

**18:40 K. REZYNKINA** (KU Leuven)

Studies of shape coexistence using Coulomb excitation of light Hg isotopes

**18:55 K. RIISAGER** (AARHUS University)

Beta decay and continuum structures

**19:10 A. GIATZOGLOU** (University College London)

Towards laser cooling and trapping of unstable Cs nuclei (Poster 1)

END 19:25

*20:00 Conference dinner*

## Friday 1st June

### Session 15: Best Posters/Contributions

09:00 – 09:45

*Chair: M. Borge*

09:00 **A. ROTARU** (IFIN-HH)

Conceptual design of a cryogenic stopping cell at ELI-NP for the production of RIBs via photo-fission (Poster 3)

09:15 **S. KOBZAK** (Max Planck Institute for Nuclear Physics)

Laser-nucleus interactions with nucleon emission (Poster 2)

09:30 **J. CUBISS** (University of York)

Deformation in gold nuclei beyond the neutron mid-shell

### Session 16: At and beyond the dripline and new modes of radioactivity

09:45 – 11:05

*Chair: M. Borge*

09:45 **N. FUKUDA** (RIKEN)

Present status of RI-beam production at BigRIPS: Search for new isotopes and nuclear drip lines, and measurement of production cross sections

10:10 **M. PFUTZNER** (University of Warsaw)

Landscape of Two-Proton Radioactivity

10:35 **G. VERDE** (INFN Catania)

Exploring in-medium dynamics and structure in nucleus-nucleus collisions

11:00 **D. ROSSI** (GSI)

Light nuclei at and beyond the neutron dripline

11:25 **O. TARASOV** (MSU East Lansing)

Exploration of the  $^{60}\text{Ca}$  region

End 11:40

*Lunch and departure*