

# ECOS-LINCE WORKSHOP: Nuclear physics with high intensity ion beams



**Wednesday 8 July 2015 - Friday 10 July 2015**

**El Rompido (Huelva)**

## Scientific Programme

**Wednesday, July 8 (Welcome, Status of ENSAR/ECOS/LINCE, Physics at ECOS)**

Chair: Angela Bracco

09:30-09:50 *Welcome address and "Updates of the LINCE project at Huelva"* (I. Martel, University of Huelva, Spain)

09:50-10:10 *"Updates of ENSAR2"* (M. Harakeh, KVI-CART, Netherlands)

10:10-10:30 *"Updates of ECOS"* (F. Azaiez, IPN Orsay, France)

**10:30-11:00 Coffee Break**

11:00-11:45 *"Status and Perspectives in Superheavy Element Research"* (M. Block, GSI/HIM/JGU, Germany)

11:45-12:15 *"The frontiers of the spectroscopy of proton-rich nuclei with high intensity heavy-ion accelerators"* (B. Cederwall, KTH Royal Institute of Technology, Sweden)

**12:15-14:00 Lunch Break**

Chair: Marek Lewitowicz

14:00-14:30 *"Towards the production and characterization of neutron rich nuclei at energies around the barrier"* (N. Alahari, GANIL, France)

14:30-15:00 *"Inelastic scattering of  $^{17}\text{O}$  at 20 MeV/u : a tool for the study of the tail of giant resonances"* (A. Bracco, University of Milano and INFN, Italy)

15:00-15:30 *"Physics with S3 at Spiral2"* (A. Drouart, CEA, France)

**15:30-16:00 Coffee break**

16:00-16:30 *"Status and perspectives in reaction dynamics, correlations and EoS"* (G. Verde, IPN Orsay, France)

16:30-17:00 *"Symmetry energy studies with  $4\pi$  detectors and magnetic spectrometers"* (A. Chbihi, GANIL, France)

17:00-17:30 *"Future Challenges in Nuclear Astrophysics with High Intensity Stable Ion Beams"* (A. Tumino, University of Enna "Kore" and INFN-LNS, Italy)

18:00-19:30 *Meeting of the ECOS Steering Committee (closed session)*

### **Thursday, July 9 (Physics with Light Ion Beams)**

Chair: Faiçal Azaiez

09:00-09:30 *"Nuclear Structure around the  $N=Z$  line"* (S. Lenzi, University of Padova and INFN, Italy)

9:30-10:15 *Open Discussion on intense stable heavy-ion beams* (F. Azaiez, M. Harakeh)

10:15-11:00 *"Perspectives on direct reactions with ECOS and discussion"* (S. Gales, IPN Orsay & ELI-NP, France, Romania; F. Azaiez, IPN Orsay, Orsay France)

### **11:00-11:30 Coffee Break**

10:30-12:00 *"Giant Collective Modes in Nuclei"* (M. Harakeh, KVI-CART, Netherlands)

12:00-12:30 *"New frontiers in nuclear structure using charge-exchange reactions with high intensity light ions beams"* (H. Sakai, RIKEN, Japan)

12:30-13:00 *"Study of collective excitation modes in atomic nuclei using stable light ion beams"* (A. Hennig, Inst. of Nuclear Physics, Un. of Cologne, Germany)

### **13:00-14:30 Lunch break**

Chair: Hide Sakai

14:30-15:00 *"Experimental approaches to study 3NF effects using light-ion beams"* (J. Messchendorp, KVI-CART, Netherland)

15:00-15:30 *"Three-nucleon force effects in few-nucleon systems"* (A. Kozela, IFJ PAN, Poland)

15:30-16:00 *"The study of tensor forces via nucleon transfer ( $p,d$ ) reaction"* (S. Terashima, Beihang University, China)

**16:00-16:30 Coffee break**

16:30-17:30 *"Open discussion on intense stable light ion beams and science and applications with intense stable beams"* (Chair: A. Maj, IFJ PAN, Poland; Moderators: F. Azaiez S. Gales, M. Harakeh, H. Sakai)

**Friday, July 10 (Technical developments)**

Chair: Sydney Gales

09:30-10:00 *"Building a European Collaboration for the European Spallation Source"* (C. Darve, European Spallation Source, Sweden)

10:00-10:30 *"The MYRRHA Accelerator project"* (H. Sagnac, IPN Orsay, France)

10:30-11:00 *"FFAG as a tool for ECOS-LINCE accelerator"* (C. Bontoiu, Univ. Huelva, Spain)

**11:00-11:30 Coffee Break**

11:30-12:00 *"The SPIRAL 2 project at GANIL"* (J.-M. Lagniel, GANIL, France)

12:00-13:15 *"Technical challenges for future very high intensity LINAC and Open Discussion"* (J.-S. Bousson, IPN Orsay, France)

**13:00-14:30 Lunch / end of workshop**