



### **Third Circular**

Joint LIA COLL-AGAIN, COPIGAL, and POLITA Workshop  
French-Italian-Polish Collaborations  
**April 26-29, 2016**  
**LNS Catania**

Dear Colleagues,

The second joint Workshop of the COLL-AGAIN (France-Italy), COPIGAL (France-Poland), and POLITA (Italy-Poland) collaborations will be held at LNS in Catania in the period 26-29 April 2016. This framework aims to reinforce existing collaborations and promote new contacts and exchanges between the nuclear physics communities of the three countries.

**The scientific program is attached**

### **REGISTRATION**

**You can register online at the website of the conference:**

[www.lns.infn.it/link/LIA-2016](http://www.lns.infn.it/link/LIA-2016)

**PLEASE, REGISTER AS SOON AS POSSIBLE!!**

### **PRACTICAL INFORMATION**

#### **- VENUE ADDRESS**

Istituto Nazionale di Fisica Nucleare  
Laboratori Nazionali del Sud - LNS  
Via S. Sofia 62,  
I-95123 Catania, Italy  
URL: [www.lns.infn.it](http://www.lns.infn.it)

#### **- DAILY SHUTTLE SERVICE**

There will be organized bus transportation every day from downtown to LNS and from LNS to downtown, with the exception of the 26 of April in the morning when participants will use public transportation to reach the laboratory (please, note that the 26 of April lunch will be provided for all participants at LNS at 13.00). The 27 and 28 of April the bus will leave at 8.15 from Piazza Stesicoro (a map can be found on the web site). The 29 of April the bus will leave at 8.00 from Piazza Stesicoro.

The 29 of April, after the last session, a shuttle service will be organized to the airport and to downtown.

All the information about the daily shuttle service will be confirmed during the first day of the Workshop.

## **- PUBLIC BUS TRANSPORTATION**

It is possible to get to University campus via the [BRT](#) bus line, getting off at the "Cittadella Ovest" bus stop, just 30 meters after campus entrance. The route, the corresponding map, and the timetable can be found on the web site. Bus runs every 7/10 minutes in the morning/afternoon. Bus tickets (1€) can be found at the newspaper kiosks or tobacconists. Remember to validate your ticket at the automatic counter inside the bus once you get in. To go back to the hotels, you need to take the BRT bus line at the "Cittadella Est" bus stop.

## **- MEALS**

Buffet lunches will be provided for all participants from 26 to 29 of April at LNS. A conference dinner will be organized the 27 of April. More information will be provided during the Workshop.

## **- HOTELS**

Participants may use the selection of hotels provided on the web page of the [Workshop following the instructions given there](#) (special prices have been negotiated for the participants). Those who need assistance may write to the address: [info@pi4.it](mailto:info@pi4.it).

We also include here some suggestions for hotels that participants may book via [booking.com](#) or [TripAdvisor](#) or directly via the links provided below. Please, be aware that for the hotels listed below prices have not been negotiated for the Workshop by the organizers.

- Hotel Stesicorea (<http://www.stesicoreapalace.it/>)
- Hotel La Collegiata (<http://www.bb-catania-guesthouse.it/catania-hotel-centro-storico.html>)
- Hotel Sofia (<http://www.hotel-sofia.it>)
- Hotel Novecento (<http://www.hotelnovecentocatania.com>)
- Hotel Agathae (<http://www.hotelagathae.it>)
- Hotel Stesicoro (<http://www.bbstesicoro.it/>)
- Hotel Il Principe (<http://www.ilprincipehotel.com/>)

## **Organizing committee (spokespersons of the three agreements)**

B. Fornal, F. Gramegna, M. Grasso, M. Lewitowicz

### **Local organizing committee**

G. Cardella, M. Colonna, E. Lanza, P. Russotto, D. Santonocito

### **Conference Secretary**

G. Agnello, V. Potenza, LNS

We look forward to seeing you in Catania,

Bogdan Fornal, Fabiana Gramegna, Marcella Grasso, and Marek Lewitowicz

**PROGRAM**  
**Joint LIA COLL-AGAIN COPIGAL POLITA WORKSHOP**  
**26-29 April 2016, LNS Catania**

**Tuesday, 26 April**

**Registration and Lunch**

14.25 **Welcome** by B. Fornal, F. Gramegna, M. Grasso, M. Lewitowicz

**Welcome and Opening Talks. Chairperson: G. Fiorentini**

14.35-15.00 **Welcome** by G. Cuttone (LNS Director) & A. Insolia (INFN Ct Director)

15.00-15.15 E. Nappi (INFN)

***NP in Italy and its relation in the international framework***

15.15-15.30 F. Farget (IN2P3)

**Nuclear Physics at IN2P3**

15.30-15.45 A representative of the Polish Ministry of Science

**Session Facilities I. Chairperson: F. Farget**

15.45 - 16.10 G. Georgiev (CSNSM Orsay)

***ALTO: The 'little big Facility' for nuclear physics at Orsay***

16.10 - 16.35 M. Kmiecik (IFJ PAN Krakow)

***Collective excitations using proton beam at CCB Krakow - program and preparation measurements***

16.35-16.55 Coffee break

**Session Facilities II. Chairperson: M. Taiuti**

16.55 - 17.20 M. Lewitowicz (GANIL)

***Present and future of the GANIL-SPIRAL2 facility***

17.20 - 17.45 P. Napiorkowski (HIL UW Warsaw)

***Research news from Heavy Ion Laboratory, University of Warsaw***

17.45 - 18.10 G. Prete (LNL)

***LNL and the SPES project***

18.10 - 18.35 D. Rifuggiato (LNS)

***LNS and the CS upgrade***

**Wednesday, 27 April**

**Session Theory I. Chairperson: N. Alamanos**

9.00 - 9.25 S. Burrello (LNS)

***Pairing and Symmetry Energy effects in low density nuclear matter: nuclear reactions and neutron stars***

9.25 - 9.50 M. Grasso (IPN Orsay)

***Tailoring interactions for beyond-mean-field models in EDF theories***

9.50 - 10.15 N. Itaco (INFN & Univ. Na)

**Realistic Shell Model: Consistently Facing the Four Quadrants around 208Pb**

10.15 - 10.40 M. Kowal (NCBJ Warsaw)

***Candidates for long-lived high-K ground states in superheavy nuclei***

10.40 - 11.00 Coffee break

## Session Nuclear Structure I. Chairperson: S. Leoni

11.00 - 11.25 B. Blank (CENBG Bordeaux)

***Two-proton radioactivity - a nuclear structure tool beyond the drip line***

11.25 - 11.50 F. Crespi (INFN & Univ. Mi)

***Review of Selected Experiments on Collective Modes via Gamma Spectroscopy***

11.50 - 12.15 E. Clément (GANIL)

***Spectroscopic Quadrupole Moment in  $^{96,98}\text{Sr}$  : Shape coexistence at  $N=60$  COPIGAL***

12.15 - 12.40 A. Goasduff (LNL)

***Recent development on electromagnetic moment measurements using plunger techniques at ALTO and LNL***

12.40 - 13.05 K. Hadynska (LNL INFN and HIL UW)

***Development of the Coulomb excitation technique at INFN LNL and HIL Warsaw. Status and perspectives***

Lunch

## Session Theory II. Chairperson: T. Matulewicz

14.45 - 15.10 F. Nowacki (IPHC Strasbourg)

***Model Stability From Shell Far***

15.10 - 15.35 J. Okolowicz (IFJ PAN Krakow)

***Near-threshold clustering***

15.35 - 16.00 X. Roca-Maza (INFN Mi)

***Dipole polarizability and the neutron skin thickness in nuclei***

16.00 - 16.25 M. Warda (UMCS Lublin)

***Studies of formation, structure, collective excitations and decay modes of nuclei far from stability, made and planned by the Lublin group of nuclear theory***

16.25 - 16.50 Coffee break

## Session Nuclear Structure II. Chairperson: F. Staley

16.50 - 17.15 L. Iskra (IFJ PAN Krakow)

***Spectroscopic study of neutron-rich  $Y$  isotopes produced in fission induced by cold neutrons on various targets***

17.15 - 17.40 M. Krzysiek (IFJ PAN Krakow)

***Study on the pygmy dipole states in  $^{140}\text{Ce}$  using inelastic scattering of  $^{17}\text{O}$***

17.40 - 18.05 S. Lenzi (INFN & Univ. Pd)

***AGATA - Campaign in GANIL***

18.05 - 18.30 I. Stefan (IPN Orsay)

***Deep inelastic at  $0^\circ$***

18.30 - 18.55 M. Zielinska (SPhN Saclay)

***Onset of deformation in neutron-rich  $Rb$  isotopes from Coulomb excitation studies***

## Thursday, 28 April

### **Session Instrumentation I. Chairperson: P. Bednarczyk**

9.00 - 9.25 D. Beaumel (IPN Orsay)

***Development of new Silicon arrays for high resolution transfer studies.***

9.25 - 9.50 E. De Filippo (INFN Ct)

***Integration of the GET electronics for the CHIMERA + FARCOS devices***

9.50 - 10.15 M. Jastrzab (IFJ PAN Krakow)

***Application of Diamond Detectors to Proton beam measurements and ultrafast timing***

10.15 - 10.40 P. Kulig (UJ Krakow)

***Modeling of the signal from silicon detectors in nuclear reactions***

10.40 - 11.00 Coffee break

### **Session Interface Nuclear Structure/reactions. Chairperson: K. Rusek**

11.00 - 11.25 M. Cavallaro (LNS)

***Transfer reactions and neutron decay studies by the MAGNEX-EDEN facility***

11.25 - 11.50 A. Chbihi (GANIL)

***In-medium dynamics in nuclear structure***

11.50 - 12.15 E. Fioretto (LNL) –

***Inverse kinematics experiments with the PRISMA spectrometer***

12.15 - 12.40 N. Keeley (NCBJ Warsaw)

***Direct Reactions With Light Radioactive Beams***

12.40 - 13.05 D. Lacroix (IPN Orsay)

***Superfluid effects in nuclear collective motion: applications to fission and other processes***

13.05 - 13.30 A. Trzcinska (HIL Warsaw)

***Quasielastic barrier distributions studies - influence of weak channels***

Lunch

### **Session Instrumentation II. Chairperson: G. De Angelis**

14.45 - 15.10 A. Maj (IFJ PAN Krakow)

***The novel gamma calorimeter PARIS – status of the development***

15.10 - 15.35 T. Marchi (KU Leuven)

***ATS: the Active target for SPES***

15.35 - 16.00 H. Savajols (GANIL)

***S3 facility at SPIRAL2***

16.00 - 16.25 D. Mengoni (INFN & Univ. Pd)

***The GALILEO gamma array @LNL: commissioning & experimental campaign***

16.25 - 16.50 J.C. Thomas (GANIL)

***The DESIR facility at GANIL-SPIRAL2***

16.50 - 17.10 Coffee break

### **Session Dynamics I. Chairperson: M. Lattuada**

17.10 - 17.35 R. Bougault (LPC Caen)

***Isospin effects in Heavy Ion collisions***

17.35 - 18.00 L. Morelli (INFN & Univ. Bo)

***Clustering effects in reactions with light even-even  $N=Z$  nuclei.  
From the Hoyle state to cluster emission in  $^{24}\text{Mg}$***

18.00 - 18.25 A. Sochocka (UJ Krakow)

***Isospin effect studies for intermediate mass fragments  
Production in heavy ion collisions at intermediate energies***

**End of Session Theory II:**

18.25 - 18.50 T. Duguet (SPhN Saclay)

***Ab initio calculations of mid-mass nuclei with chiral interactions***

**Friday, 29 April**

**Session Interdisciplinary Research and Applications. Chairperson: P. Moretto**

8.45 - 9.10 E. Fagotti

***Design, construction and first operation of the IFMIF Prototype  
Accelerator***

9.10 - 9.35 A. Maj and W. Krolas (IFJ PAN Krakow)

***The initiative to host IFMIF/DONES in Poland – status and scientific  
program***

9.35 - 10.00 X. Ledoux (GANIL)

***The Neutrons For Science Facility at GANIL/SPIRAL-2***

10.00 - 10.20 Coffee break

**Session Nuclear Astrophysics. Chairperson: J. Jastrzebski**

10.20 - 10.45 A. Guglielmetti (INFN & Univ. Mi)

***Nuclear astrophysics underground: the LUNA experiment at Gran  
Sasso Laboratory***

10.45 - 11.10 F. Hammache (IPN Orsay)

***Study of stellar nucleosynthesis using radioactive beams at GANIL***

11.10 - 11.35 M. La Cognata (LNS)

***Nuclear astrophysics with indirect approaches: ANC and Trojan  
Horse Method***

11.35 - 12.00 C. Mazzocchi (UW Warsaw)

***Study of astrophysically-relevant photo-disintegration reactions***

12.00 - 12.25 N. de Sereville (IPN Orsay)

***Astrophysical studies with Splitpole spectrometer at the  
ALTO facility***

Lunch

**Session Dynamics II. Chairperson: D. Durand**

13.45 - 14.10 P. Russotto (INFN-Catania)

***Constraining the symmetry energy at supra-saturation densities:  
the ASY-EOS experiment at GSI***

14.10 - 14.35 K. Siwek-Wilczynska (UW Warsaw)

***What can we learn about the reaction mechanism from studies of  
 $\text{Au}+\text{Au}$  collisions at  $23\text{MeV}/A$ ?***

14.35 - 15.00 G. Verde (IPN Orsay/INFN-Catania)

***In-medium characterisation of sources and EoS***

**Conclusions and Perspectives. Chairperson: A. Pagano**

15.00 - 15.25 A. Bracco (Univ. Mi & INFN Mi)

***NUPECC & Nuclear Physics in EUROPE***