Re-writing Nuclear Physics textbooks: 30 years of radioactive ion beam physics
Pisa, 20-24 July 2015

Scientific Programme

June 20, 2015

8:30-9:15 Registration of students and tutors
9:15-9:30 Practical introduction by Angela Bonaccorso
9:30-11:00 Parallel introductory lectures by national tutors

- **China**
  - Baohua Sun (Beijing)

- **Belgium/France**
  - Pierre Descouvemont (Bruxelles)
  - Stéphane Grévy (Bordeaux)

- **Spain**
  - Dolores Cortina-Gil (Santiago de Compostela)
  - Antonio Moro (Sevilla)

- **Canada/Finland/Japan/Germany/UK**
  - Andrei Andreyev (York)
  - Stefan Typel (GSI)

- **Italy**
  - Gianluca Colò (Milano)
  - Alessia Di Pietro (INFN-LNS)
  - Lorenzo Fortunato (Padova)
  - Jose Javier Valiente Dobon (INFN-LNL)

9:30-11:00 Registrations of Lecturers and Seniors.
11:00-11:20 Coffee break
11:20-11:30 Official Welcome/Opening of the School
  - Marco Grassi (INFN-Pisa), Ettore Vicari (Università di Pisa), Giovanni Casini (INFN – Firenze)
11:30-12:30 Chair: N. Alamanos (Saclay)
  - How it all started
  - Isao Tanihata (Osaka and Beijing)

12:30-14:00 Lunch
14:00 - 16:00 Chair: A. Bracco (Milano)
  - Global properties of atomic nuclei: masses, radii and modern methods to measure them
  - Magda Kowalska (CERN, Geneva)

16:00-16:30 Coffee Break
16:30 - 18:30 Chair: N. Itaco (Napoli)
  - Making radioactive ion beams, detecting reaction products
  - Riccardo Raabe (Leuven)

18:30 – 19:30 TUTORIALS

21/7/2015

9:00-11:00 Chair: E. Santopinto (Genova)
  - Strong, weak and electromagnetic forces at work in atomic nuclei, decay properties
  - Giovanna Benzoni (Milano)

11:00-11:30 Coffee break
11:30-13:30 Chair: L. Marcucci (Pisa)
  - Structure models: from shell model to ab initio methods
  - Sonia Bacca (TRIUMF, Vancouver)

13:30-15:00 Lunch
15:00-17:00 Chair: C. Bertulani (Texas)
  - Reaction theory
  - Stefan Typel (GSI)

17:00-17:30 Break
17:30-18:45 Chair: T. Motobayashi (RIKEN)
  - Presentations of country/laboratory activities (15min each)

- **UK:** A. Andreyev (York)
- **Germany:** T. Aumann (Darmstadt)
- **France:** Y. Blumenfeld (Orsay)
- **Belgium:** R. Raabe (KUL)
- **Spain:** B. Rubio (Valencia)

18:45-19:30 TUTORIALS
June 22, 2015

9:00-11:00 Chair:  D. M  Brink (Oxford)
Resonance phenomena: from compound nucleus decay to proton radioactivity
Robert J. Charity (St Louis)

11:00-11:30 Coffee break
11:30-13:30 Chair:  T. Aumann (Darmstadt)
Experimental methods and measured observables with polarized proton targets: understanding spin-orbit
Tomohiro Uesaka (RIKEN)

13:30-15:00 Lunch
15:00-17:00 Chair: G. Pasquali (Firenze)
Probing nuclear structure with direct reactions: observables, methods and recent progress with rare isotopes
Alexandre Obertelli (Saclay)

17:00-17:30 break
17:30-18:15 Chair:  M. Viviani (Pisa)
Presentations of country/laboratory activities (15min each)
Japan: T. Motobayashi (RIKEN)
China: Baohua Sun (Beijing)
Canada: R. Kanungo (Halifax)

18:15-19:00 TUTORIALS

23/7/2015

9:00-11:00 Chair:  A. Gargano (Napoli)
Single particle versus collectivity, shapes of exotic nuclei
Andrea Jungclaus (Madrid)

11:00-11:30 Coffee break
11:30-13:30 Chair:  I. Bombaci (Pisa)
Radioactive ion beams in experimental nuclear astrophysics
Lucio Gialanella (Napoli)

13:30-15:00 Lunch
15:00-17:00 Chair:  V. Rosso (Pisa)
Applications of physics of unstable nuclei to energy, medicine, material science
Ulli Koester (ILL-Grenoble)

17:00-17:30 break
17:30-18:30 Chair: Y. Blumenfeld (Orsay)
What’s next in Nuclear Physics with RIBs
Bjorn Jonson (Göteborg)

18:30-19:30 Final general discussion-tutorial
20:30-23:00 SOCIAL DINNER

24/7/2015

Visit to the INFN Laboratori Nazionali di Legnaro.
Buses leave Pisa at 8:00h
11:30-12:00 Presentation of the Laboratory and the SPES project
G. Fiorentini, Director of the Laboratory

12:00-13:30 Lunch
13:30 14:30 Chair:  G. de Angelis (INFN-LNL)
Presentation of the Italian Activities with RIBs.
Theory: M. Colonna (INFN-LNS)
Experiments: G. Casini (INFN-FI)

14:30-16:30 Visit to the Laboratory
17:00 Departure
20:30 Arrival in Pisa