Pisa, January 2015.

Dear Colleagues,

as already announced in the first circular, the Italian Nuclear Physics community sponsored by the INFN organizes a celebrating training summer initiative geared towards students attracted to the field of Physics with Radioactive Ion Beams (RIBs) by the title:

Re-writing Nuclear Physics textbooks: 30 years of radioactive ion beam physics

This meeting will be held in Pisa at the INFN and Department of Physics, 20 to 24 July 2015.

An important point of this event is that the progress we have made in this field in the last 30 years need to be developed further in the future and to this goal we wish to attract and educate the best possible students introducing them to the wonders of Physics with RIBs. Therefore our planned activities will be directed mainly towards students who are in the process of deciding on their master thesis.

The activity will consist in the following lectures:

Isao Tanihata (Osaka and Beijing)
How it all started.

Magda Kowalska (CERN, Geneva)
Global properties of atomic nuclei: masses, radii and modern methods to measure them.

Riccardo Raabe (Leuven)
Making radioactive ion beams, detecting reaction products.

Giovanna Benzoni (Milano)
Strong, weak and electromagnetic forces at work in atomic nuclei, decay properties.

Robert J Charity (St Louis)
Resonance phenomena: from compound nucleus decay to proton radioactivity.

Sonia Bacca (TRIUMF, Vancouver)
Structure models: from shell model to ab initio methods.

Alexandre Obertelli (Saclay)
Probing nuclear structure with direct reactions: observables, methods and recent progress with rare isotopes.

Stefan Typel (GSI)
Reaction theory.

Tomohiro Uesaka (RIKEN)
Experimental methods and measured observables with polarized proton targets: understanding spin-orbit.

Andrea Jungclaus (Madrid)
Single particle versus collectivity, shapes of exotic nuclei

Lucio Gialanella (Napoli)
Radioactive ion beams in experimental nuclear astrophysics.

Lecturer TBA. Applications of RIBs.

Bjorn Jonson (Göteborg)
What's next in Nuclear Physics with RIBs.

Each lecture will cover a topic contained in a standard Nuclear Physics textbook extended to show how our understanding has deeply changed due to the experience accumulated with RIB physics since 1985. In order to give the activity a fully international character, and because we aim at feavouring the participation of really young students, the first half day we will propose some introductory lectures given in separated sessions in different languages: Italian, Chinese, English, French, Japanese, Spanish, Polish, Portuguese.

Original contributions will be invited for submission to the *European Physical Journal A*. and the editorial board is composed of Nicolas Alamanos (IRFU, CEA, Saclay, France), Carlos Bertulani (Texas A&M University, Commerce, Texas, USA), Angela Bracco (University of Milano, Italy) and David Brink (University of Oxford, UK).

Organization:

Lectures will be held at the Department of Physics of the University of Pisa for the first four days. On the fifth day a trip (free of charge) will be organized to visit the INFN Laboratory at Legnaro, near Padova, where SPES, the Italian RIB facility is under construction. Pisa is an historical, pleasant touristic and university town. Student accommodation will be provided at the rate of about 35 €/day. Meals are available at many small neighbouring restaurants at an average price of 10 € for lunch and 20 € for dinner.

There will be no fee for undergraduate students. Graduate students, postdocs and senior colleagues will be accepted up to a maximum of 150 participants and a fee of 150 € will be required.

Registrations will be open at the end of February. The final circular with the detailed program will be sent by the end of May. Any country wishing to join will be welcomed. Please write to the secretariat address given below.

Main sponsor: INFN. Other sponsor: IRFU

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