



**Basic concepts in Nuclear Physics: theory, experiments and applications**

**June 18<sup>th</sup> – 22<sup>nd</sup>, 2018**

**La Rábida, Huelva (SPAIN)**

## **FIRST ANNOUNCEMENT**

Dear colleagues and friends,

This is the first announcement of the 2018 La Rábida International Scientific Meeting on Nuclear Physics: “*Basic concepts in Nuclear Physics: theory, experiments and applications*”.

The event will take place from June 18th to June 22nd, 2018 (arrival day will be Sunday May 17th and departure Friday June 22nd in the afternoon) in the campus of the International University of Andalucía (UNIA) at La Rábida. This campus is fully equipped for this kind of events, providing also a very pleasant and relaxed atmosphere that favours a close contact among the participants. It includes a library, access to computer services, and lecture rooms, as well as gardens and entertainment places. Board and lodging are comprised in the fee. La Rábida (province of Huelva, Spain) is within walking distance from the “Monasterio de Santa María de La Rábida”, the Franciscan monastery where Columbus took refuge in 1490. It is also close (about half an hour) to the beach and to the Doñana National Park.

The School, that will last for five days, aims to furnish students and young postdocs with a wide and solid education in the field of Nuclear Physics, presenting in a clear and pedagogical way basic concepts of Nuclear Physics and their multiple applications in different aspects of the human activity.

This new edition follows closely the framework of the three previous meetings, hold in 2009, 2012, and 2015 (see <http://institucional.us.es/rabida/>). This event can be traced back to the International Summer Schools organized by the Nuclear Physics Group at the University of Sevilla in the 1980's.

Although the lectures will constitute the bulk of the meeting, an active contribution of the participants is expected with discussions and presentation of their own works. There will be some time devoted to selected seminars or short oral communications. In addition, we intend to collect the lectures in a book that could be used as a reference text. The proceedings of the last three editions were published by the American Institute of Physics (AIP Conference Proceedings volumes 1231 and 1541) and Springer (Springer Proceedings in Physics 182).

### **Topics and lecturers**

The objective of the meeting is to offer the attendance the opportunity to get in close contact with experienced researchers and hear their account of the nowadays state-of-the-art in some hot topics in Nuclear Physics. The course is proposed to be divided in three main topics: theory, experiments, and applications. Having in mind the available time, we have selected six speakers, four hour lecturing each one. The list of speakers and topics is as follows:

- Prof. Tommi Eronen, University of Jyväskylä (Finland). Topic: *Experimental techniques for mass measurements*.
- Prof. Alexander Obertelli, CEA Saclay Service de Physique nucléaire (France) Topic: *Nuclear reactions experiments*.
- Prof. Alex Brown, Michigan State University (USA). Topic: *Shell model*.
- Prof. José Gómez Cadenas, Instituto de Física Corpuscular, IFIC-CSIC (Spain). Topic: *neutrino physics and NEXT experiment*.
- Prof. Katia Parodi, LMU Munich Physics (Germany) Topic: *Medical image processing, treatment planning, PET applications*.
- Prof. Pierre Capel, Université Libre de Bruxelles (Belgium). Topic: *Nuclear reaction theory*.

The organizers have emphasized in the invitation letter to the lecturers the importance of the interaction with young students, as well as the pedagogical character of the meeting.

### Fees

The fee is Euros 350. It covers the participation in the meeting as well as the 6 days full board and lodging in a double room (from the evening of Sunday, June 18<sup>th</sup>, to the afternoon of Friday, June 22<sup>nd</sup>), social events, the bus Sevilla–La Rábida (round trip), and a copy of the proceedings of the School.

Few single and handicap accessible rooms may also be available. **Scholarships** covering board and/or accommodation will be provided in some cases, PhD students and young postdocs are encouraged to apply.

### Applications and Contact Information

The application form will be soon (end November 2017) available on the web page of the Meeting, and a preliminary program will be sent as soon as possible with the second announcement.

Meeting Web Page: <http://institucional.us.es/rabida>. The e-mail address for correspondence is: [rabida@us.es](mailto:rabida@us.es)

### Organizing Committee

HUELVA UNIVERSITY: José E. García-Ramos (director) and Francisco Pérez-Bernal.  
 SEVILLA UNIVERSITY: María Victoria Andrés, José Antonio Lay, and Antonio M. Moro.  
 The meeting is jointly organized with Universidad Internacional de Andalucía (UNIA).

### International Advisory Committee

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