



1st circular – March 6th, 2017

The 36th edition of the Joliot-Curie International School, entitled

“New views on radioactivity”

will cover an ‘old’ subject, radioactivity, but from new perspectives that keep triggering discoveries and innovation still 120 years later.

Challenging theoretical predictions together with sophisticated experimental devices extend nowadays the number of radioactive modes far beyond the three first letters of the Greek alphabet, improving our understanding of the atomic nucleus. Alpha decay studies keep adding new elements to the periodic table. High precision measurements of the beta decay challenge the Standard Model of particle physics in unique ways beyond reach of even the powerful LHC. The production of new radioactive isotopes enlarges the landscape of medical applications. Original devices extend our capabilities to control power plants and the proliferation of nuclear weapons. New dating techniques take us back to the origins of mankind.

Lectures covering all these aspects will be complemented by the presentation of an innovative technique, muon tomography, that will be illustrated through workshop sessions (more details will be given later). The students will be able to present their work during two poster sessions during the first days of the school.

The school will take place from September 24th to 29th at Les Isambres, located on the French Mediterranean coast, close to the TGV train station of Saint Raphaël. The closest airport is Nice, at 55 min drive:

<http://www.capvacances.fr/lesissambres-ete.html>

Participants are expected to arrive on the afternoon of Sunday 24th from noon and leave on Friday 29th after lunch.

Pre-registration is open from March 6th to April 28th. Details on the registration procedure, and the school in general, can be found on the website:

<http://ejc2017.sciencesconf.org/>

Acceptance will be communicated to the participants by e-mail before May 15th, along with the procedure to follow for the final registration and payment. The school will try to cover the accommodation costs of as much participants as possible. If you would like to benefit from such support, please ask for it in your pre-registration.

On behalf of the Organizing Committee:

Pauline Ascher, Serge Franchoo, Aurélie Gontier (secretary), Grégoire Kessedjian, Elias Khan, Miguel Marqués (chair), Nicoleta Pauna, Barbara Sulignano

PS/ List of speakers (more details to come on the website):

- Leonid Grigorenko (Dubna, Moscow)
"Theoretical basics and modern status of radioactivity studies"
- Etienne Liénard (LPC, Caen)
"Radioactivity and the limits of the Standard Model"
- Jérôme Giovinazzo (CENBG, Bordeaux)
"Proton radioactivities"
- Ulli Köster (ILL & UGA, Grenoble)
"Ternary fission and other exotic radioactivities"
"Medical applications of radioactivity"
"Lessons from Chernobyl and Fukushima"
- Christophe Theisen (CEA, Saclay)
"From the discovery of fission to the synthesis and decay of superheavy nuclei"
- Muriel Fallot (SUBATECH, Nantes)
"Non proliferation and radioactivity"
- Christophe Falguères (HNHP, Paris)
"Dating methods in prehistory during Quaternary period"
- Sébastien Procureur (CEA, Saclay)
"Muon tomography and applications"