



1st circular – March 12th, 2018

The 37th edition of the Joliot-Curie International School, entitled

“Correlations between partons in nuclear systems”

will cover the essential role of quark and gluon correlations inside hadrons. The description of high and low-energy scattering within Quantum Chromodynamics (QCD) have developed very rapidly in the last few years following some unexpected results from three independent accelerator facilities: the Relativistic Heavy Ion Collider (RHIC), the Large Hadron Collider (LHC) and Jefferson Lab (JLab). Observations include correlations between partons in quark-gluon plasmas (QGP), nucleons in nuclei and multiple parton interactions in hadron systems. In parallel to these experimental outcomes, the theoretical understanding of the internal structure of the nucleon in terms of quarks and gluons has made tremendous progress recently, and tools such as Generalized Parton Distributions (GPDs) and Transverse Momentum dependent Distributions (TMDs) have improved the description hadron collisions at high energy.

This year's edition of the school will focus on both the new experimental results and the theoretical tools required for their interpretation. Lectures covering all these aspects will be complemented with practical workshop sessions (more details will be given later). The students will be able to present their work within two poster sessions during the first days of the school.

The school will take place from October 7th to 12th at La Grande Motte, located on the French Mediterranean coast, close to the TGV train station and airport of Montpellier:

<http://www.capvacances.fr/village-vacances-herault-la-grande-motte.html>

Participants are expected to arrive on the afternoon of Sunday 7th from noon and leave on Friday 12th after lunch.

Pre-registration is open from March 12th to May 11th. Details on the registration procedure, and the school in general, can be found on the website:

<http://ejc2018.sciencesconf.org/>

Acceptance will be communicated to the participants by e-mail before May 22nd, along with the procedure to follow for the final registration and payment. The school will cover the registration and accommodation costs of participants from institutions that support EJC2018, and if the final budget allows we might also help some participants from other institutions. If you would like to benefit from such support, please ask for it in your pre-registration.

On behalf of the Organizing Committee:

Guillaume Batigne, Brigitte Cheynis, Andrea Ferrero, François Gelis, Aurélie Gontier (secretary), Antonin Maire, Miguel Marqués (chair), Carlos Muñoz, Sarah Porteboeuf

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

- Markus Diehl (DESY, Germany)
“Introduction to perturbative QCD and factorization”
- Edmond Iancu (CEA, Saclay)
“Color Glass Condensate and Quark-Gluon plasma”
- Klaus Werner (SUBATECH, Nantes)
“Multi-parton interactions in event generators”
- Jan Fiete Grosse-Ötringhaus (CERN)
“Multi-parton interactions in measurements (LHC+RHIC)”
- Raphaël Dupré (IPNO, Orsay)
“Using the nucleus as a laboratory for QCD with e-A scattering”
- Thomas Ullrich (BNL, USA)
“The Electron-Ion Collider”