IJColloquium

Beate HEINEMANN (DESY and University of Hamburg)

Is currently Professor of Physics at the University of Hamburg and Director of DESY for the area of Particle Physics. During her career, she has been involved in CDF (Fermilab US) and ATLAS (CERN) experiments and fulfilled several responsibilities as Professor at the Universities of Freiburg and Berkeley and as convener and coordinator of various analysis groups at CDF (convener of Exotic analyses, Physics coordinator) and in ATLAS (Data preparation coordinator). She was elected Deputy Spokesperson of ATLAS for two mandates (2013-2017). She serves as member of high-level panels on the future of High Energy Physics (P5 Committee, European Strategy Board, FCC steering committee, CEPC Advisory Committee, ICFA).

Understanding the Quantum Universe : particle physics status and plans

Mankind has long been wondering what matter is made of. This area of research is subject of the field of particle physics and during the past 100 years enormous progress has been made, resulting not only in the discovery of the fundamental constituents of matter (quarks and leptons) but also of the force carriers that mediate the interactions between them, and the Higgs boson that has various roles and ultimately makes our existence possible. The questions of particle physics have evolved to now try to understand the underlying principles that have resulted in this picture of our World, and how these relate to what happened in the early Universe. High priorities are for instance why there is so much more matter than anti-matter, why gravity is so much weaker than the other forces or what Dark Matter is. In this talk I will present highlights from the current research activities and what is planned for the coming years and decades.

Vendredi 20 octobre 2023 à 10H30
Café d'accueil à 10H

Auditorium Pierre Lehmann Bât.200

Contacts:
lydia.fayard@ijclab.in2p3.fr
yorick.blumenfeld@ijclab.in2p3.fr

www.ijclab.in2p3.fr/ijcolloquium

IJCLab
Irène Joliot-Curie
Laboratoire de Physique des 2 Infinis

cnrs
université PARIS-SACLAY
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