

SÉMINAIRE DE PHYSIQUE CORPUSCULAIRE

SUJET: Standard Model measurements at the LHC: importance

and prospects

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DATE: Mercredi 20 novembre 2013, 11h15

LIEU: Science III, Auditoire 1S081

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RÉSUMÉ:

The key missions of the LHC include the study of the Higgs boson and of electroweak symmetry, and the search for new physics phenomena. These goals, nevertheless, rely on the precise measurements of Standard Model (SM) particles, which are the ultimate measurable decay products of any phenomenon emerging from the LHC. The detailed and accurate study of the dynamics of SM interactions, therefore, becomes a crucial step in fulfilling the LHC's key missions. The dynamical regime exposed by the LHC, with the highest energies ever produced in the laboratory, and the precision required by the experimental measurements, challenge our ability to deliver accurate enough theoretical predictions, and limit the fullest exploitation of the LHC results. A global and coordinated campaign of SM measurements and comparisons to theory will however greatly enrich the outcome of LHC physics, increasing the sensitivity to anomalies and new phenomena, and better guiding the interpretation of the data.

INFORMATION: http://dpnc.unige.ch/seminaire/annonce.html

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