



Colloques de Physique des Particules

**dans le cadre de la procédure de nomination d'un-e
professeur-e associé-e ou assistant-e au DPNC**

SUJET: Searches for New Physics with Top Quarks: a two-way approach

PAR: Dr Lucia MASETTI

DATE: Mercredi 27 novembre 2013, 10h00

LIEU: Science III, Auditoire 1S059
Boulevard d'Yvoy, 1211 Genève 4

RÉSUMÉ:

The top quark is the heaviest known elementary particle: point-like but as heavy as a gold atom, the only fermion with a natural Yukawa coupling and a naked quark decaying before hadronising. Almost 20 years after its discovery, top quarks could be produced at a high rate only recently at the LHC, where a few millions have been collected, allowing for very precise measurements of its properties. The high centre-of-mass energy of the LHC could be as well exploited for dedicated searches for new heavy particles decaying preferentially to top quarks. This talk will review the latest searches for direct and indirect evidence of new physics in the production and decay of top quarks at the LHC.

Les membres du corps enseignants et les étudiants sont invités aux colloques et peuvent faire part de leurs commentaires au Doyen de la Faculté