



**UNIVERSITÉ
DE GENÈVE**

FACULTÉ DES SCIENCES
Département de physique
nucléaire et corpusculaire

SÉMINAIRE DE PHYSIQUE CORPUSCULAIRE

SUJET: **Physics opportunities at the FCC**

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RÉSUMÉ:

Prompted by the outcome of the 2013 European Strategy for Particle Physics, CERN has therefore undertaken a five-year study for a Future Circular Collider (FCC) facility built in a new 100 km-circumference tunnel. Such a tunnel could host an e+e- collider (FCC-ee) with an intensity up to five orders of magnitude higher than LEP and an energy exceeding the top-pair production threshold. It could also house a proton-proton collider (FCC-hh) operating at a centre-of-mass energy of 100 TeV, seven times that of the LHC, in view of collecting ten times more data than the HL-LHC. An electron-proton collider (FCC-eh) would allow the proton substructure to be measured with unmatched precision. The FCC discovery potential would address many of the outstanding questions in modern particle physics and secure our exploration of the microscopic world for generations.

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

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