



**UNIVERSITÉ
DE GENÈVE**

FACULTÉ DES SCIENCES
Département de physique
nucléaire et corpusculaire

SÉMINAIRE DE PHYSIQUE CORPUSCULAIRE

SUJET: Tau Leptons at ATLAS: Reconstruction & Physics

PAR: Dr Pier-Olivier DEVIVEIROS
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LIEU: Science III, Auditoire 1S081
Boulevard d'Yvoy, 1211 Genève 4

RÉSUMÉ:

Tau leptons play a significant role in the ATLAS physics program. As the heaviest leptons, they offer the most sensitive probe into the properties of leptonic Higgs couplings. Additionally, they offer unique sensitivity to beyond the Standard Model physics scenarios where they are often produced preferentially.

From the first observation of hadronically-decaying taus in W decays in 2010, to the recent evidence for Higgs decays to leptons, a lot of progress has been made in the reconstruction of tau leptons at ATLAS. In this seminar, a summary of the tau reconstruction, calibration and identification algorithms at ATLAS will be shown. Additionally, a review of the most recent ATLAS physics results in final states with hadronically-decaying tau leptons will be presented.

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

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