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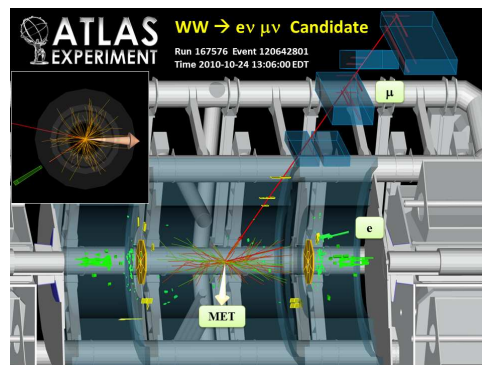
SUJET : "Search for the Higgs Boson at the LHC "

PAR: Prof Karl Jakobs,
Université de Freiburg, Allemagne

DATE: Mercredi 16 novembre 2011, à 17h00

LIEU: École de Physique, Auditoire Stückelberg
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RÉSUMÉ: One of the prime tasks of the physics programme of the LHC is the investigation of electroweak symmetry breaking. In the Standard Model the Higgs mechanism is invoked to give masses to the electroweak gauge bosons and fermions and to restore unitarity of the theory at high energies. Although the Higgs mechanism is one of the cornerstones of the Standard Model it is experimentally not validated and the associated Higgs boson has escaped detection so far.



The data accumulated at the LHC in the years 2010/11 allow already to establish tighter constraints on the allowed mass range for the Higgs boson. In the present talk the strategies for the search of the Higgs boson at the LHC are presented. The status of the search is primarily discussed for several ATLAS analyses covering different mass regions. In addition, the results based on the combination of individual channels in ATLAS and the results of the combination with the results of the CMS experiment are presented. Finally, the prospects for the Higgs boson search with more data and the potential of the measurement of Higgs boson parameters are summarized.

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

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