Irfu
Institut de recherche
sur les lois fondamentales
de l'Univers

Séminaire DPhP

Lundi 03/06/2019, 11h00

CEA-Saclay Bât. 141, salle André Berthelot

A Staged Muon Accelerator Facility for future Neutrino and Collider Physics in the multi-TeV energy range

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CERN

In preparation for a Lepton Collider in the multi-TeV range which will possibly be required for precision physics beyond the standard model if and when identified, novel acceleration techniques are being developed with attractive performance. After a review of the technology options being considered for an affordable $e^{+/-}$ linear collider at the energy frontier, the presentation will focus on Muon-based facilities which offer a unique potential to enable capabilities at both the Intensity Frontier with Neutrino Factories and the Energy Frontier with Muon Colliders ranging from Higgs to multi-TeV energies. By comparison with other technologies, through objectives Figures of Merit, a Muon Collider, is demonstrated to be the most promising option in the multi-TeV energy range. Muon based facilities rely on novel technologies with challenging parameters and critical issues from which the status and future plans of the R&D to demonstrate their feasibility is presented.

Le café sera servi 10 minutes avant.

NB : La présentation d'une pièce d'identité est exigée à l'entrée du centre. Tous les auditeurs extérieurs sont priés de prévenir à l'avance Martine Oger, tél. 01 69 08 23 50, e-mail : `martine.oger@cea.fr`. (U.E. : délai de 24 h, hors U.E. : délai de 4 jours).