



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

**Séminaire  
DPhP**

**Lundi 26/03/2018, 11h00**

CEA-Saclay Bât. 141, salle André Berthelot

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## **Electrons for the LHC**

**MAX KLEIN**

University of Liverpool

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The physics prospects on Standard Model, Higgs and BSM Particle as well as Nuclear Physics are presented which the addition of an energy recovery electron linac (ERL) to the LHC (HL and HE) may open at CERN through synchronous, high luminosity ep and pp operation. An ep/A detector design is presented for possible built in the twenties. Aspects are presented also of the Large Hadron Electron Collider accelerator concept, its status and development, especially through a low energy electron beam facility (PERLE) for LAL/IPN Orsay under design by an international collaboration.

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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](mailto:martine.oger@cea.fr). (U.E. : délai de 24 h, hors U.E. : délai de 4 jours).