



Irfu

Institut de recherche
sur les lois fondamentales
de l'Univers

**Séminaire
DPhP**

Lundi 06/05/2019, 14h00

CEA-Saclay Bât. 141, salle André Berthelot

**Light-by-light scattering at the LHC,
present and future.**

LAURENT SCHOEFFEL

CEA Saclay, Irfu/DPhP

Light-by-light scattering is a very rare phenomenon in which two photons interact, producing another pair of photons. This process was among the earliest predictions of quantum electrodynamics (QED), the quantum theory of electromagnetism, and is forbidden by classical physics theories. Direct evidence for light-by-light scattering had proven elusive for decades, until the results from the LHC. We describe how these results have been obtained and what are the perspectives for the light-by-light scattering at the LHC and elsewhere and also beyond pure light-by-light scattering.

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).