



**Irfu**

Institut de recherche  
sur les lois fondamentales  
de l'Univers

**Séminaire  
DPhP**

**Lundi 03/07/2017, 11h00**

CEA-Saclay Bât. 141, salle André Berthelot

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## **The Dark Energy Survey and beyond**

**BOB NICHOLS**

University of Portsmouth

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We are approaching two decades since the initial discovery of dark energy; a mysterious substance that dominates the energy density of the Universe. The last decade has confirmed its existence and basic properties beyond doubt, but we remain unclear about its true physical nature. I will review the evidence for dark energy and then focus on a new experiment called the "Dark Energy Survey" (DES) that has been designed to address one of the key questions regarding dark energy, namely is it consistent with a cosmological constant? DES will also provide key new data for a variety of astronomical projects, and be a forerunner for the next generation of sky surveys. I will end the talk with a brief overview of Euclid and LSST.

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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).