



**IrFU**

Institut de recherche  
sur les lois fondamentales  
de l'Univers

**Séminaire  
SPP**

**Lundi 20/11/2017, 11h00-12h00**

CEA-Saclay Bat 141, salle AndrÃ© Berthelot

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## **Evidence for the $H \rightarrow bb$ decay in VH production at ATLAS**

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The Higgs decays to b-quarks are by far the most abundant at the LHC, with a branching ratio of 58%. It is therefore an important part of the Higgs sector to study, however the overwhelming Standard Model backgrounds make this observation quite challenging at the LHC. ATLAS has recently obtained its first evidence of this decay with 36fb-1 of data at  $\text{sqrt}(s)=13\text{TeV}$ , in the channel where the Higgs is produced in association with W or Z bosons. This seminar will highlight the key elements that made this evidence possible, and draw perspectives in this field for the years to come.

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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).