

Lundi 6 juin 11h00

CEA-Saclay Bât 141, salle André Berthelot

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# Ruling out a fourth generation using limits on hadron collider Higgs signals

JACK GUNION

UC Davis

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We consider the impact of a 4th generation on Higgs to two-photon and  $WW, ZZ$  signals and demonstrate that the Tevatron and LHC have essentially eliminated the possibility of a 4th generation if the Higgs is SM-like and has mass below 200 GeV. We also show that the absence of enhanced Higgs signals in current data sets in the two-photon and  $WW, ZZ$  final states can strongly constrain the possibility of a 4th generation in two-Higgs-doublet models of type II, including the MSSM.

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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 Emilie Chancrin, tél. 01 69 08 23 50, e-mail : [emilie.chancrin@cea.fr](mailto:emilie.chancrin@cea.fr). (U.E. : délai de 24 h, hors U.E. : délai de 4 jours).