

Lundi 21/03/2016, 11h00-12h00

CEA-Saclay Bat 141, salle André Berthelot

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# Exotic Pentaquark observation at LHCb

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I will discuss the discovery of two pentaquark states both decaying into a  $J/\Psi$  meson and a proton. The decay mode defines the quark content as  $c\bar{c}, u, u, d$ , and thus are called charmonium pentaquarks. These exotic structures are found in  $\Lambda_b \rightarrow J/\Psi K^- p$  decays using a full amplitude analysis using 7 and 8 TeV pp collisions from  $3/fb$  of data collected by the LHCb experiment. The two states will be shown to be of opposite parity and have spins  $3/2$  and  $5/2$ . Finally different models of pentaquark structure will be discussed.

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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).