



Contribution ID: 37

Type: **not specified**

Studies of central diffractive production of open charm with CMS and TOTEM experiments.

Tuesday 31 July 2018 09:15 (15 minutes)

The CMS and TOTEM experiments have jointly collected data from pp collisions at $\sqrt{s} = 13$ TeV in a special LHC run at the end of 2015. We discuss a preliminary analysis concerning the possibility of observation of diffractive open charm mesons in the channels $D^{+*} \rightarrow D^0 + \pi^+ \rightarrow K^+ + \pi^- + \pi^+$ (c.c) and $D^0 \rightarrow K^+ + \pi^-$ (c.c) taking advantage of TOTEM's proton tagging capability. The analysis is based on the reconstruction of the D^0 and D^+ in the central detector (CMS), combined with the proton reconstructed by the forward detector (TOTEM), in order to select central diffractive events. The results are compared with a Monte Carlo simulation that reproduces the conditions the data were collected.

Primary authors: ALVES COELHO, Eduardo (Universidade do Estado do Rio de Janeiro (BR)); NOGIMA, Helio (Universidade do Estado do Rio de Janeiro (BR)); DE PAULA CARVALHO, Wagner (Universidade do Estado do Rio de Janeiro (BR))

Presenter: ALVES COELHO, Eduardo (Universidade do Estado do Rio de Janeiro (BR))

Session Classification: Análise de Dados

Track Classification: Análise de Dados