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

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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.

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