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## Search for branons in hadronic final states in proton-proton collisions at $\sqrt{s} = 13$ TeV at CMS

*vendredi 1 décembre 2017 11:00 (30 minutes)*

In order to solve the hierarchy problem and to answer the question “what is Dark Matter?”, many models involving additional spatial dimensions have been proposed. Among them is the branon model, which predicts the production of branons, scalar Dark Matter candidates, along with Standard Model particles. This study proposes to search for branon production at center of mass 13 TeV in hadronic final states with CMS experiment. The presentation will briefly introduce the model, will detail the principles of the analysis, and will show the projected results, based on a former study performed at center of mass 8 TeV in monophoton final state.

### Summary

**Orateur:** LELOUP, Clement

**Classification de Session:** Au-delà du modèle standard