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**Search for Low Mass Resonances using CMS Data Scouting** ABHIJITH GANDRAKOTA, Rutgers University, New Brunswick, CMS COLLABORATION[1] — Several interesting BSM models predict the possibility of low mass resonances. But the kinematic thresholds used in the current set of triggers make CMS blind to these resonances. To overcome this problem CMS has implemented Data Scouting techniques that allow trigger thresholds to be lowered by saving a very limited amount of trigger-level event information offline. Here we present the searches that used this data scouting technique to set some of the strongest limits to date for low mass resonances in multi-jet and di-muon channels. I will talk about the various new techniques we developed to use the scouting dataset to search for low mass boosted hadronic resonances and ultra-low mass long-lived di-muon resonances. I will also talk about the new fitting techniques that are being used for background prediction at these low masses regimes.

[1]Compact Muon Solenoid(CMS) experiment at the Large Hadron Collider(LHC)

Abhijith Gandrakota
Rutgers University, New Brunswick

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