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## Searches in CMS for new physics with low mass mediators

*Saturday, 9 July 2022 10:30 (15 minutes)*

Many new physics models predict low mass resonances. However, the kinematic thresholds used in the nominal data taking program of CMS pose a difficulty in kinematically accessing 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. In this talk, we present the searches that used this data scouting technique in the LHC Run-II data to set some of the strongest constraints to date for low mass resonances in prompt and long-lived signatures.

### In-person participation

Yes

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