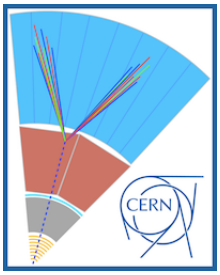

Contribution ID: **72** Type: **not specified**

CMS: scouting & parking

Thursday, 5 June 2025 15:30 (20 minutes)

CMS continues to explore innovative data acquisition strategies, such as data scouting and data parking, to enhance sensitivity to BSM physics signatures. Data scouting targets low-mass and low-momentum regimes typical of many LLP scenarios by enabling the high-rate recording of reduced-content event information taken directly from the CMS trigger system, thereby accessing regions of phase space beyond the reach of conventional trigger strategies. Data parking, in parallel, also records events using relaxed selection thresholds but retains the full raw detector information for offline reconstruction, which can be deferred to accommodate resource constraints. These complementary approaches have proven instrumental in probing challenging signatures from both SM and BSM processes, including LLPs. In this talk, I will review recent developments in these strategies during Run 3 and discuss prospects for the future.

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Session Classification: Trigger streams