Contribution ID: **76** Type: **not specified**

On the Phenomenology of the GRSMEFT

Wednesday 23 September 2020 14:45 (15 minutes)

We present collider probes of the GRSMEFT, the most general effective field theory of gravity coupled to the SM of particle physics. In particular, we focus on graviton production in association with a jet, for which we derive the leading new-physics scattering amplitude, the expected cross section, and compare with missing energy searches at the LHC in order to bound the size of the relevant GRSMEFT operator. Along the way, we comment on the expected size of such an operator from matching to simple UV completions.

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Session Classification: Particle Phenomenology session on Zoom and in Main Auditorium.

Track Classification: Particle Phenomenology