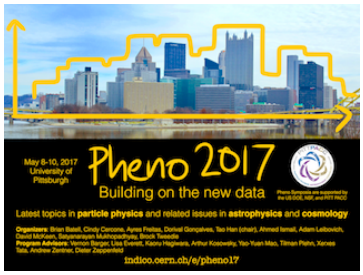


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# Leptophobic Spin-2 Resonances at the LHC

*Monday, 8 May 2017 18:00 (15 minutes)*

Experiments at the LHC may discover a dijet resonance unpredicted by the Standard Model and therefore indicative of Beyond the Standard Model (BSM) physics. In this case, physicists would wonder: what BSM theories are consistent with the unexpected resonance? We examine models featuring a "leptophobic graviton"–a phenomenological spin-2 color-singlet particle with color-exclusive couplings–and assess the possibility of their discovery in the dijet channel as s-channel resonances. We include a tree-level partial wave unitarity analysis as a phase space constraint. We also apply the color discriminant variable, a unitless combination of quantities (production cross-section, total decay width, and invariant mass) that can be quickly measured after the discovery of a dijet resonance.

## Summary

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