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## Heavy resonances at energy-frontier hadron colliders

*Friday, July 12, 2019 5:15 PM (15 minutes)*

This talk explores the physics reach of the proton-proton Future Circular Collider (FCC-hh) and of the High-Energy LHC (HE-LHC) for searches of new particles produced in the  $s$ -channel and decaying to two high-energy leptons, jets (non-tops), tops or W/Z bosons (as discussed in arXiv:1902.11217). We discuss the expected discovery potential and exclusion limits for benchmark models predicting new massive particles that result in resonant structures in the invariant mass spectrum. We also present a detailed study of the HE-LHC potential to discriminate among different models, for a  $Z'$  that could be discovered by the end of High-Luminosity LHC (HL-LHC).

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