

# A Z portal to the dark sector

*Tuesday, September 19, 2023 11:30 AM (20 minutes)*

This talk argues that rare Z decays to a QCD-like dark sector provide unexplored opportunities to the LHC experiments. We present two distinct classes of ultraviolet completions of such Z portal, including a novel scenario featuring a light  $Z'$  vector boson, which we show to be compatible with electroweak precision data. We then highlight the phenomenological signatures, focusing on the interplay between dark shower signals in Z decays and searches for rare decays of B mesons.

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