

# Beyond-Standard-Model Physics at the High-Luminosity LHC with CMS

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The High-Luminosity Large Hadron Collider (HL-LHC) is expected to deliver an integrated luminosity of up to 3000 fb<sup>-1</sup>. The very high instantaneous luminosity will lead to about 200 proton-proton collisions per bunch crossing (“pileup”) superimposed to each event of interest, therefore providing extremely challenging experimental conditions. The sensitivity to find new physics Beyond the Standard Model (BSM) physics is significantly improved and will allow to extend the reach for heavy vector bosons, for SUSY, dark matter and exotic long-lived signatures, to name a few.

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