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## SUSY scenarios for muon $g-2$ anomaly: LHC Run 2 and future

*Friday, 8 July 2022 12:40 (17 minutes)*

SUSY is still a viable solution to the muon  $g-2$  anomaly. Focusing on its minimal version (MSSM), I provide an overview of its current status, including constraints from the LHC Run 2, expected limits from future experiments, and connections to the relic density of the lightest SUSY particle as the dark matter.

I will cover all the four possible “simplified mass spectra” for the  $g-2$  anomaly and discuss which models are nice in terms of the relic density, which are disfavored by LHC results, which are tough to search for at experiments, and what we should do for further investigations.

### In-person participation

Yes

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