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Status and prospects of the muon magnetic anomaly measurement at FNAL

Wednesday 24 May 2023 14:00 (30 minutes)

The Muon $g-2$ experiment at FNAL measured the muon magnetic anomaly to 0.46 ppm in 2021 and expects to increase the precision on this quantity to 0.23 ppm in 2023 and to 0.14 ppm in 2025, providing a stronger test of the Standard Model prediction, whose uncertainty has been recently estimated at 0.37 ppm. We report on how the measurement is performed, on the improvements with respect to the 2021 published result and on the estimated precision of the incoming measurements.

Author: LUSIANI, Alberto (Scuola Normale Superiore and INFN, sezione di Pisa)

Presenter: LUSIANI, Alberto (Scuola Normale Superiore and INFN, sezione di Pisa)

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