

Status of the MUonE experiment

venerdì 11 aprile 2025 14:20 (4 minuti)

The MUonE experiment at CERN aims to determine the leading-order hadronic contribution to the muon $g-2$ by an innovative approach, using elastic scattering of 160 GeV muons on atomic electrons in a low- Z target. The M2 beam line at CERN provides the necessary intensity needed to reach the statistical goal in few years of data taking. The experimental challenge relies in the precise control of the systematic effects. A first run with a minimal prototype setup was carried out in 2023. A pilot run has been approved to be held in 2025 with a reduced setup of the full detector components. We will present the status of the experiment, first preliminary results and the future plans.

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Classifica Sessioni: Frontiera dell'Intensità

Classificazione della track: Frontiera dell'Intensità