

03 MUON g-2

New g-2 experiment at J-PARC

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摘要 A new measurement of the anomalous magnetic moment of the positive muon a_{μ} is proposed with a novel technique utilizing an ultra-cold muon beam accelerated to 300 MeV/c and a 66 cm-diameter muon storage ring without focusing-electric field. This measurement will be complimentary to the previous measurement that achieved 0.54 ppm accuracy with the magic energy of 3.1 GeV in a 14 m diameter storage ring. The proposed experiment aims to achieve the sensitivity down to 0.1 ppm.

关键词 [muon, anomalous magnetic moment, J-PARC](#)

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