



Contribution ID: 112

Type: Oral presentation using Zoom

Status of the MUonE experiment

Wednesday, 27 October 2021 20:12 (24 minutes)

The MUonE experiment aims at a competitive determination of the leading hadronic contribution to the muon anomalous magnetic moment, completely independent from the other existing results.

It could have a crucial role to clarify the comparison of the a_μ measurement with the Standard Model, given the recent Fermilab result, and the tension between the accepted theory prediction and a new Lattice QCD calculation.

The novel method requires a precise measurement of the hadronic component of the running electromagnetic coupling, which can be extracted from the shape of the differential cross section of μe elastic scattering, obtained by the 160 GeV CERN muon beam on fixed target.

The project status is presented, in view of the test run on a reduced detector, which is starting in Fall 2021 and will be completed in 2022.

1st preferred time slot for your oral presentation

19:00-21:00 JST (12:00-14:00 CEST, 6:00-8:00 EDT, 3:00-5:00 PDT)

2nd preferred time slot for your oral presentation

15:30-17:30 JST (8:30-10:30 CEST, 2:30-4:30 EDT, 23:30-1:30 PDT)

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Session Classification: I: Electroweak physics

Track Classification: Parallel sessions: Topical Groups: Session I: Electroweak physics