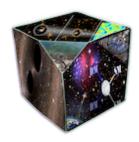
PPC 2018: XII International Conference on Interconnections between Particle Physics and Cosmology



Contribution ID: 70

Type: Poster on low energy precision experiments

The Mu3e Experiment

Tuesday, 21 August 2018 15:35 (5 minutes)

Mu3e is an experiment for the search for the charged lepton flavour violating decay $\mu \to \text{eee}$ with a single event sensitivity of 10^{-16} , which is an improvement of 4 orders of magnitude over the current limit of $B < 10^{-12}$ (90% CL, SINDRUM, 1988).

This poster explains the general detector concept and lays focus on the scintillating fibre sub-detector. High muon stopping rates of up to $10^8 \mu/s$ call for precise timing measurements to suppress combinatorial backgrounds (*pileup*). The scintillating fibre sub-detector (in combination with a scintillating tile sub-detector) makes for combinatorial background suppression by two orders of magnitude.

Affiliation

ETH Zurich

Email address

gerritzen@phys.ethz.ch

Academic position

PhD student

Primary author: Mr GERRITZEN, Lukas (ETH Zurich (CH))

Presenter: Mr GERRITZEN, Lukas (ETH Zurich (CH))

Session Classification: Short presentations & Poster session