



Contribution ID: 311

Type: **Presentation**

Normalizing to the Number of Stopped Muons in the Mu2e Experiment

Wednesday, 2 August 2017 13:30 (18 minutes)

The Mu2e experiment aims to search for coherent, neutrino-less muon-to-electron conversion in aluminum at a single event sensitivity of $3E-17$, a factor of 10,000 improvement from the current experimental limit. In order to achieve this goal, the denominator of the branching ratio, i.e. the number of muons captured in the aluminum stopping target, must be measured to a precision of 10%. A sub-system of the Mu2e experiment, called the Stopping Target Monitor (STM), will measure the X-rays and gamma rays emitted as muons are captured in the stopping target. The proposed method, simulation results of detector performance, and baseline design will be described.

Primary author: Dr TRAN, Nam (Boston University, Department of Physics)

Co-author: FOR THE MU2E COLLABORATION, Fermilab (Fermilab)

Presenter: Dr TRAN, Nam (Boston University, Department of Physics)

Session Classification: Particle Detectors

Track Classification: Particle Detectors