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## **A totally Active Scintillator Calorimeter for the Muon Ionization Cooling Experiment**

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The Electron-Muon Ranger (EMR) is a totally active scintillator detector to be installed in the muon beam of the Muon Ionization Cooling Experiment (MICE) - the main RD project for the future neutrino factory. It is aimed at measuring properties of low energy beam composed of muons, electrons and pions performing the identification particle by particle. The EMR is made of 48 intersecting layers. Each layer consists of 59 triangular scintillator bars. It is shown that the granularity of the detector makes it possible to identify tracks and measure particle ranges and shower shapes. The read-out is based on FPGA custom made electronics and commercially available modules. Currently it is being built at the University of Geneva and it is planned to install it in MICE in the first quarter of 2013.

### **quote your primary experiment**

MICE

**Primary author:** ASFANDIYAROV, Ruslan (Universite de Geneve (CH))

**Presenter:** ASFANDIYAROV, Ruslan (Universite de Geneve (CH))

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