Abstract Submitted
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**Designing a Modern Low Cost Muon Detector to Teach Nuclear Physics**[1] CARLY PRESS, JULIA KOTLER, Muhlenberg College — In an effort to make it possible for small institutions to train students in nuclear physics, an attempt is made to design a low cost cosmic ray muon detector (perhaps under 600 dollars) capable of measuring flux vs. solid angle and muon lifetime. In order to expose students to current particle detection technologies, silicon photomultipliers will be coupled with plastic scintillator to provide the signals, and an Arduino, Raspberry Pi, or National Instruments device will interface with the detector. Once designed and built, prototypes of the detector will be used in outreach to K-12 students in the Allentown, PA area.

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