

Abstract Submitted
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Construction of Neutron- and Muon-Sensitive Cosmic Ray Detectors MONTGOMERY STEELE, CAROLA BUTLER, XIAOCHUN HE, Georgia State University — In the study of cosmic rays, there is a strong need for high-quality yet affordable equipment capable of tracking the secondary showers produced by collisions in the Earth's atmosphere. At Georgia State University, we are engaged in an ongoing project to develop the most efficient possible detector for the study of cosmic rays on the Earth's surface. Our new detectors are capable of simultaneously detecting muons and neutrons over a wide range of energies using a novel system of scintillating optical fibers coupled to silicon photomultipliers. Our long-term goal is to use these detectors to set up cosmic weather stations across the world to study the impact of cosmic rays at large scales.

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