

Abstract Submitted  
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**Multi-spectra Cosmic Ray Flux Measurement** XIAOCHUN HE, MATHES DAYANANDA, Georgia State University — The Earth's upper atmosphere is constantly bombarded by rain of charged particles known as primary cosmic rays. These primary cosmic rays will collide with the atmospheric molecules and create extensive secondary particles which shower downward to the surface of the Earth. In recent years, a few studies have been done regarding to the applications of the cosmic ray measurements and the correlations between the Earth's climate conditions and the cosmic ray fluxes [1,2,3]. Most of the particles, which reach to the surface of the Earth, are muons together with a small percentage of electrons, gammas, neutrons, etc. At Georgia State University, multiple cosmic ray particle detectors have been constructed to measure the fluxes and energy distributions of the secondary cosmic ray particles. In this presentation, we will briefly describe these prototype detectors and show the preliminary test results. Reference: [1] K.Borozdin, G.Hogan, C.Morris, W.Priedhorsky, A.Saunders, L.Shultz, M.Teasdale, *Nature*, Vol.422, 277 (2003). [2] L.V. Egorova, V. Ya Vovk, O.A. Troshichev, *Journal of Atmospheric and Terrestrial Physics* 62, 955-966 (2000). [3] Henrik Svensmark, *Phy. Rev. Lett.* 81, 5027 (1998).

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