Abstract Submitted
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The ACME Project - Making ATLAS an High Energy Cosmic Ray Detector JAMES PINFOLD, University of Alberta, MARJORIE BARDEEN, Fermilab — The ACME group proposes to install a surface array of scintillation detectors at LHC point 1 above the ATLAS detector. This surface array in combination with the muon system of ATLAS allows two complimentary independent measurements of the electro-magnetic and hadronic components of cosmic ray showers with particular sensitivity to the knee region of the cosmic ray energy spectrum. ACME will be a sensitive instrument for the study of primary composition, exotics such as centauro and anti-centauro events and the excess of high multiplicity muon bundles observed at LEP by such experiments as CosmoALEPH and L3C. We envisage that the construction and operation of the surface array presents an outreach opportunity to high school students and their teachers.

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