Abstract Submitted
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Particles Production in Extensive Air Showers: GEANT4 vs CORSIKA[1] M.S. SABRA, NASA Postdoctoral Program Fellow, Marshall Space Flight Center, J.W. WATTS, University of Alabama Huntsville, M.J. CHRISTL, Marshall Space Flight Center — Air shower simulations are essential tools for the interpretation of the Extensive Air Shower (EAS) measurements. The reliability of these codes is evaluated by comparisons with equivalent simulation calculations, and with experimental data (when available). In this work, we present GEANT4 calculations of particles production in EAS induced by primary protons and Iron in the PeV (10^{15} eV) energy range. The calculations, using different hadronic models, are compared with the results from the well-known air shower simulation code CORSIKA, and the results of this comparison will be discussed.

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