

Abstract Submitted
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Searching for Exotic Particles at the Pierre Auger Observatory Using Bayesian Inference DAVID SCHUSTER, LAWRENCE WIENCKE, Colorado School of Mines — Upper limits on the fractional composition of selected exotic particles in hybrid data from the Pierre Auger Observatory were obtained. Exotic particle types considered are magnetic monopoles, Q-balls, strangelets, micro-black holes and UHECRONs. A Bayesian method was used to set limits on the candidates at energies above 10^{18} eV. By systematically comparing distributions of the parameter Xmax from simulated extensive air showers to a given set of data, this method obtains an upper limit on the composition fraction of the selected exotics. The method and results from the study will be discussed.

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