## Abstract Submitted for the 4CF09 Meeting of The American Physical Society

Identification of clear atmospheric conditions in a search for exotic candidates at the Pierre Auger Observatory DAVID STARBUCK, dstarbuc@mines.edu — Stable periods of clear and cloudless atmospheric conditions were identified using data from the Pierre Auger Observatory's Central Laser Facility. The objective of this study is to assist in a search for exotic signatures. This search uses longitudinal profiles reconstructed from data recorded by fluorescence detectors. Longitudinal profiles that show exotic behavior are usually caused by cloudy or hazy atmospheric conditions. Signatures that fit this description can be eliminated by limiting the search to periods of clear atmospheric conditions.

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