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

Measurement of the Average Depth of Shower Maximum and its Fluctuations with the Pierre Auger Observatory MEGAN LONGO, Colorado State University — We present a measurement of the rate of change of the depth of shower maximum with energy using data from the Pierre Auger Observatory. We introduce an event selection that assures an unbiased and high quality data sample. The analysis of these results will lead to further understanding of the hadronic interaction models and the mass composition of cosmic rays at ultra high energies.

Megan Longo Colorado State University

Date submitted: 18 Sep 2009 Electronic form version 1.4