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

Cosmic Ray Composition Studies with the High Resolution Fly's Eye JOHN BELZ, University of Utah, HIGH RESOLUTION FLY'S EYE COLLABORATION — The depth of shower maximum or X_{max} of extensive airshowers is a sensitive probe of the chemical composition of ultra-high energy cosmic rays. Both the evolution of mean X_{max} with energy and the width of the X_{max} distribution can provide clues as to the species of the particles initiating the airshowers. Here, we report the results of composition studies using X_{max} with data collected in stereoscopic mode by the High-Resolution Fly's Eye observatory. The HiRes data are best explained by a predominantly protonic composition above 1.6 EeV.

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Date submitted: 25 Sep 2009 Electronic form version 1.4