Abstract Submitted
for the APR14 Meeting of
The American Physical Society

EUSO-BALLOON: a Pathfinder for the Extreme Universe Space Observatory Mission[1] JIM ADAMS, University of Alabama in Huntsville, PETER VON BALLMOOS, Institut de Recherche en Astrophysique et Plantologie (IRAP), Toulouse, France, ANDREA SANTANGELO, Institute for Astronomy and Astrophysics, Kepler Center, University of Tubingen, Germany, MARK CHRISTL, NASA Marshall Space Flight Center, Huntsville, AL, USA, LAWRENCE WEINCKE, Colorado School of Mines, Golden, Colorado, USA, JEM-EUSO COLLABORATION[2] — EUSO-BALLOON is a pathfinder for the JEM-EUSO (Extreme Universe Space Observatory on the Japanese Experiment Module) mission which is being developed by an international collaboration of scientists from 15 countries. JEM-EUSO is designed to observe Ultra-High Energy Cosmic Ray-induced air showers by measuring the fluorescent and Cherenkov light they emit in the near ultraviolet. Video clips of the showers will be recorded and used to reconstruct the energies and arrival directions of the cosmic rays. EUSO-BALLOON will demonstrate the key JEM-EUSO technologies and techniques including an infrared camera to characterize the atmosphere. It will be flown on stratospheric balloons by the French Space Agency, CNES. The first flight will be in the summer of 2014. The instrument will point to the nadir from an altitude of about 40 km recording both showers and background transient luminous events. EUSO-BALLOON will monitor a 12 by 12 degree field of view. It is currently being integrated and tested at IRAP in Toulouse.

[1]We acknowledge support from NASA Grant NNX13AH53G.
[2]http://jemeuso.riken.jp

Jim Adams
University of Alabama in Huntsville

Date submitted: 10 Jan 2014 Electronic form version 1.4