

Abstract Submitted
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Final Preparation of the CALorimetric Electron Telescope (CALET) for Launch to the International Space Station¹ BRIAN RAUCH, Department of Physics and McDonnell Center for the Space Sciences, Washington University in St. Louis, FOR THE CALET COLLABORATION — CALET has been delivered to the JAXA Tsukuba Space Center and is undergoing final preflight testing for launch to the ISS on HTV5 for installation on the Japanese Experiment Module - Exposed Facility (JEM-EF) with a target date in 2015. This Japanese-Italian-US astroparticle observatory consists of a main calorimeter (CAL) and a Gamma-ray Burst Monitor (CGBM) subsystem. The CAL is comprised from top to bottom of a charge detector (CHD) with two crossed layers of scintillator paddles, an imaging calorimeter (IMC) with planes of scintillating fibers interleaved with a total of 3 radiation lengths (X_0) of tungsten, and a 27 X_0 deep total absorption calorimeter (TASC) made of lead tungstate logs, which has the excellent energy resolution and imaging capabilities to resolve electrons, hadrons and photons. In a planned 5 year mission CALET will measure the combined cosmic ray electron and positron spectrum to 20 TeV, gamma rays to 10 TeV, nuclei $1 \leq Z \leq 40$ to 1,000 TeV, and gamma-ray bursts between 7 keV and 20 MeV. CALET will look for signs of possible local astrophysical sources of cosmic ray electrons, search for dark matter signatures and probe the environment through which cosmic rays propagate from their source(s) to Earth.

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