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The International Space Station CALorimetric Electron Telescope (CALET) Experiment¹ JOHN P. WEFEL, Louisiana State University, CALET COLLABORATION — The CALET space experiment, currently being developed by collaborators in Japan, Italy and the United States, will study electrons to 20 TeV, gamma rays above 10 GeV and nuclei with Z=1 to 40 up to 1,000 TeV during a five year mission on the International Space Station. The instrument consists of a particle charge identification module, a thin imaging calorimeter (3 r.l. in total) with tungsten plates interleaving scintillating fiber planes, and a thick calorimeter (27 r.l.) composed of lead tungstate logs. CALET has the depth, imaging capabilities and energy resolution for excellent separation between hadrons, electrons and gamma rays and is expected to be launched in 2014 as an attached payload on the International Space Station (ISS) Japanese Experiment Module – Exposed Facility (JEM-EF). CALET will investigate possible nearby sources of high energy electrons, study the details of galactic particle propagation and search for dark matter signatures. This presentation summarizes the expected instrument design and performance.

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John P. Wefel Louisiana State University

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