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Measurement of Cosmic-Ray Electron and Positron Spectrum from 10 GeV to 3 TeV with the CALET ALEXANDER MOISEEV, NASA/GSFC, CALET COLLABORATION — The Calorimetric Electron Telescope (CALET) was launched on August 19, 2015 and installed on the International Space Station with the primary science goal to conduct the accurate measurements of the cosmic-ray electron and positron spectrum from 1 GeV to 20 TeV. In addition, CALET is capable to measure cosmic-ray nuclei with Z ranging from 1 to 40, and gamma-rays with energy from 1 GeV up to 10 TeV. CALET is an all-calorimetric instrument with total vertical thickness of 30 X_0 and a fine imaging capability designed to achieve a large proton rejection and excellent energy resolution, providing accurate measurements of the electron spectrum. CALET consists of a fine-grained preshower imaging calorimeter IMC, a total absorption calorimeter TASC, and a charge detector CHD which contributes to the particle identification. The observed all-electron spectrum over 30 GeV can be fit with a single power law, with some indications of spectral structure subject to the further investigation with larger statistics. Since the launch CALET has collected about half a million of electrons and positrons and continues successful operation on orbit. In this paper we will present a brief overview of the CALET mission and describe the analysis of the electron data.

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