

Abstract Submitted
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Exploring Ultra-Heavy Cosmic Rays with the Trans-Iron Galactic Element Recorder (TIGER) JASON LINK, NASA GSFC (USRA), SUPER-TIGER COLLABORATION — Elements heavier than iron are primarily synthesized by neutron capture. These elements can be accelerated as cosmic-rays and measuring their abundances at Earth can yield information about galactic cosmic-rays sources, the acceleration processes and the composition of the universe beyond the boundaries of our solar system. The Trans-Iron Galactic Element Recorder (TIGER) and its larger successor SuperTIGER was designed to measure the abundance of these ultra-heavy cosmic rays between $Z=10$ and $Z=60$. These detectors utilize scintillators with a wavelength shifter bar and PMT readout system as well as aerogel and acrylic Cherenkov detectors to identify the charge and energy of a particle and utilize a scintillating fiber hodoscope to provide trajectory information. In this talk I will review the results from this highly successful program, give the status for the next SuperTIGER flight planned for a December 2017 launch from Antarctica, and discuss the future direction of the program.

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