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Abstract for an Invited Paper
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Particle Physics Implications for Astrophysics

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New Mexico State University's involvement in the measurement of cosmic rays (space borne energetic particles) dates back to the 1970's. Measurements of these particles can contribute to our understanding of the most energetic processes in the Universe. The talk will cover the contributions of NMSU to the measurements of the antimatter components of the cosmic radiation and the study of solar energetic particles with PAMELA, Payload for Antimatter Matter Exploration and Light-nuclei Astrophysics. PAMELA was launched on a Russian Resurs-DK1 spacecraft into a polar orbit in June 2006 and remains operational to date. A summary of the PAMELA results and their connection to astrophysics will be given.