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The Cosmic Frontier: Cosmic Rays, Gamma Rays, and Neutrinos

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Abstract content

The Cosmic Frontier is the study of messenger particles that originate from the non-thermal universe. These messengers include cosmic rays, gamma rays, and neutrinos. Over the past decade we have made enormous progress in understanding the origin and propagation of these particles. We are now in a position to begin to turn these observations into scientific understanding of the cosmos. The cosmic frontier includes the study of the non-thermal universe - the sources of cosmic radiation and high-energy gamma rays and neutrinos. In this talk I will discuss observations of: cosmic anti-matter which may provide clues to the dark matter that pervades the universe, gamma rays, which can elucidate the origins of the cosmic radiation and the extreme objects that accelerate the ultra-high-energy cosmic rays, and neutrinos, which provide an unambiguous signal of cosmic-ray production.

Summary

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