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## **Gamma-ray, Cosmic-ray, and Neutrino Connections from the Acceleration of Cosmic Rays at SNR Shocks in the Milky Way and other Star-Forming Galaxies**

*Thursday 22 January 2015 11:00 (40 minutes)*

Results relevant to the question of Galactic cosmic-ray origin are presented. These include updates on hadronic strong-interaction cross sections for the production of secondary gamma rays, leptons and neutrinos, and the use of these cross sections to reveal cosmic-ray interactions and the cosmic-ray spectra in analyses of Fermi-LAT data on supernova remnants and the diffuse Galactic gamma-ray glow. The superposition of these galactic gamma-ray emissions contributes to the extragalactic gamma-ray background light, and constrains models for production of the excess extragalactic neutrino flux measured reported by the IceCube Collaboration.

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