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## Interaction of Cosmic Rays at Mesoscopic Scales

*Wednesday, 16 October 2024 15:15 (45 minutes)*

I will discuss some recent work on the interaction of cosmic rays with turbulent, diffuse, multiphase gas in the interstellar medium and beyond. Our work focuses on spatial scales which are typically not resolved by global simulations but are large compared to kinetic scales, and to the cosmic ray mean free path, so the fluid approximation holds. Phenomena at these scales are potentially observable and provide tests of the underlying models. These results were obtained in collaboration with Roark Habegger, Hanjue Zhu, Ka Ho Yuen, Ka Wai Ho, and Nick Gnedin, and were funded by DoE, NASA and the NSF.

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