

**Recent Results on Kinetic Simulations of Shocks and Turbulence**

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In this talk, we review the latest results that point to new and deeper relationships between the three fundamental processes of reconnection, turbulence and shocks in collisionless plasmas. The role of wave-particle interactions in these processes is discussed. We present results from three types of 3D kinetic simulations: decaying turbulence, global simulations of the magnetosphere, and reconnection of large scale current sheets.