

## Relativistic Soliton Acceleration

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Spatially correlated MHD waves can accelerate charged particles in a quite different way from the conventional quasi-linear energy diffusion (Kuramitsu and Hada, 2000). In this process, particles are successively mirror reflected, and thus Fermi accelerated, by moving wave packets, or the solitons. This soliton acceleration can naturally produce non-thermal part of the velocity distribution function, and so the process is important in various applications in high energy astrophysics. In this meeting we discuss our recent effort in extending the analysis to include the relativistic effects in the soliton acceleration.