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## Electromagnetic energy conversion by various processes in turbulent plasmas observed by MMS

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A key issue in space plasma physics is how electromagnetic energy is converted to plasma particle energy and heat. Electromagnetic energy conversion generally involves turbulence and/or instabilities. With the Magnetospheric Multiscale (MMS) mission data, we investigate such energy conversion in turbulent plasmas, separating the plasma currents from various drift motions and other processes and assessing their contributions. For example, we have explored the roles of curvature drift, gradient drift, particle inertia drift and perpendicular magnetization currents. We will discuss their roles and related mechanisms in turbulent plasmas. This research has been supported in part by grant RTA6280002 from Thailand Science Research and Innovation, by DPST scholarship grant, and by grant RGNS 63-045 from Office of the Permanent Secretary, Ministry of Higher Education, Science, Research and Innovation.