Inward diffusion driven by low frequency fluctuations in self-organizing magnetospheric plasma

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The self-organized peak density profile after the inward diffusion has been visualized by the tomography with deep learning technique.

The low-frequency fluctuation which drives inward diffusion has been discovered and its physical characteristics have been revealed.

These results advance our understanding of transport and self-organization not only in dipole plasmas, but also in general magnetic confinement systems relevant to fusion plasmas.