

Abstract Submitted
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Conduction, Stability, Dissipation in Intercluster Plasma MAXIM LYUTIKOV, Purdue University — Magnetic fields are dynamically subdominant in the intercluster medium, yet they may determine its dissipative properties, stability of embedded structures and transition to turbulence. First, a subtle dynamical effect, magnetic draping, leads to suppression of conductivity and dynamical stability of narrow cooling fronts and AGN blown cavities. Next, I will discuss dissipative process in collisionless plasma of ICM and argue that development of anisotropic instabilities determines the dissipation efficiency of subsonic flows. Boundary layers between interacting flows, which determine transition to turbulence, are also strongly affected by the presence of magnetic fields.

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