Abstract for an Invited Paper for the APR09 Meeting of The American Physical Society

## Heat transport and instabilities in galaxy-cluster plasmas<sup>1</sup> BENJAMIN CHANDRAN, University of New Hampshire

Small-scale plasma physics has a large impact on the global structure of the intracluster medium. This talk will focus on two examples of this micro/macro connection: anisotropic transport and buoyancy instabilities. In the first part of the talk, I will review some important theoretical developments relevant to both topics. In the second part, I will describe recent global cluster models that illustrate how plasma processes affect observable quantities such as the temperature, density, and iron abundance profiles of the intracluster medium.

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