

Abstract Submitted
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Gyrofluid study of the energy spectrum near the ion Larmor radius KATE DESPAIN, BILL DORLAND, University of Maryland; Center for Multiscale Plasma Dynamics — In the past, gyrofluid models have been used to study problems where finite Larmor-radius (FLR) effects are important. These models are computationally less expensive than full gyrokinetic computations, but still capture much of the relevant physics. We have developed a gyrofluid model that is valid for the regime with spatial scales close to the ion Larmor radius. Using this model, we explore the energy spectrum for wave numbers in this regime. Calculations are run on Graphical Processing Units (GPUs) which utilize a highly parallel architecture thus decreasing the overall computational cost.

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