

Abstract Submitted
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Parallel closures in an inhomogeneous magnetic field¹ HANKYU LEE, JEONG-YOUNG JI, Utah State University — We solve a reduced drift kinetic equation with a Krook-type model collision operator to obtain parallel closures. Grid points in the velocity space are chosen for Gauss-Laguerre quadrature to take closure moments. For trapped and passing regimes, analytical solutions are expressed as kernel-weighted integrals of thermodynamic drives. The analytical solutions are compared to numerical solutions obtained from a finite difference method. Inverting the free streaming operator near a bouncing point is investigated to improve accuracy of solutions.

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