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Juhi Jang* (juhi.jang@math.ucr.edu), Department of Mathematics, University of California, Riverside, CA 92521. *Derivation of Magnetohydrodynamic equations from Vlasov-Maxwell-Boltzmann system.*

We introduce various scalings to the Vlasov-Maxwell-Boltzmann system of two species which formally lead to Magnetohydrodynamic (MHD) type equations with the corresponding Ohm's law in the limit. The results will cover the compressible resistive MHD equations, incompressible MHD equations for both viscous and inviscid cases. Hall effect will be also discussed. (Received December 12, 2011)