

Florian Méhats
Université de Rennes 1, France

Title :

Averaging for Vlasov and Vlasov-Poisson equations

Abstract :

This is a work in collaboration with P. Chartier, N. Crouseilles and M. Lemou. My talk will deal with the Vlasov-Poisson equation under a strong magnetic field. I will first focus on formal issues and discuss how averaging techniques can be extended to transport equations in order to perform averaging while preserving geometric structures. The second part of my talk will concern a mathematical rephrasing of Littlejohn's derivation of gyrokinetic models for Vlasov-Poisson.