

Some convergence results toward gyrokinetic models

Mihai Bostan¹

¹*Aix-Marseille University, France*

The averaging methods play a crucial role when studying the dynamics of particle populations. Among the main applications, we mention the magnetic confinement, which concerns the transport of charged particles under strong magnetic fields. The main tool is the average operator along a characteristic flow. We present second order gyro-kinetic approximations and give some proof details concerning the error estimates.