

Dobrushin method for mean field approximation

In a recent paper, Golse Mouhot and Pulvirenti prove the convergence of the N body system to the solution to the Hartree equation with a method based on a Wasserstein-like "distance" that goes to zero uniformly with respect to the Planck constant. The aim of this "memoire" is to study the Dobrushin's method to pass to the limit from the classical mechanics for N body to the Vlasov Poisson system belonging to the kinetic theory and look at the gyrokinetic approximation for plasmas.

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RÉFÉRENCES

- [1] cours de M2 F. Golse
<https://www.cmls.polytechnique.fr/perso/golse/M2/PolyKinetic.pdf>
- [2] Approximation gyrocinétique des plasma D. Han Kwan.
https://www.math.ens.fr/enseignement/telecharger_fichier.php?fichier=452