

Dynamics of gravitational systems with a large number of particles

ECTS : 6

Volume horaire : 21

Description du contenu de l'enseignement :

Reminder on differential equations

- Reminder on Hamiltonian systems
- Short reminder on measure and integration theories
- Elements on distributions
- Application to the Vlasov equation
- The Vlasov-Poisson system
- The BBGKY hierarchy, the hypothesis of molecular chaos
- The particular case of a cluster with spherical symmetry, an explicit solution

This course is taught at Observatoire de Paris.

Bibliographie, lectures recommandées :

- Binney - Tremaine : Galactic Dynamics
- Cours polycopiés de F. Golse

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