Short time regularization of diffusive inhomogeneous kinetic equations

Frédéric Hérau[*1]

[1]Laboratoire de Mathématiques Jean Leray (LMJL) – Université de Nantes, Centre National de la Recherche Scientifique : UMR6629 – France

Abstract

In this talk we shall review some results about short time regularization properties of linear or linearized inhomogeneous diffusive kinetic equations. These properties are essentially due to the intrinsec hypoelliptic structure of these equations. This concerns various models, from Kolmogorov to linearized Boltzmann without cutoff equations, and we present some applications in particular for this last model (recent work with I. Tristani and D. Tonon).

[*]Speaker