

**Workshop**

*Analysis of transport equations:*

*Vlasov and related models*

Talk given by

**Frédéric Hérau**

**Title.** *Regularization properties of kinetic equations with partial diffusion properties and applications.*

In this talk we present short time regularization properties of kinetic equation whose collision kernel is of fractional diffusive type. This includes the fractional kinetic Fokker-Planck equation and the linearized Boltzmann equation without angular cut-off. This is one of the stone of a theorem about existence and stability of the full Boltzmann equation (in a perturbative context) in large functional spaces. This is a joint work with D. Tonon (Dauphine) and I. Tristani (ENS Paris)