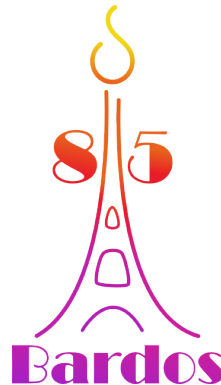


Kinetic equations and turbulence

Fisher information for the space-homogeneous Boltzmann equation

Cyril Imbert

We will focus on the regularity of solutions to the Boltzmann equation in the spatially homogeneous case. We'll see that for a large class of collision operators (corresponding to a large class of particle interactions), the Fisher information of the solutions decreases with time. This provides a sufficient a priori estimate to show that the equation is well-posed, even for the most singular (inter-particle) potentials. Work in collaboration with L. Silvestre and C. Villani.



In honor of Claude Bardos's 85th birthday