Analysis and Differential Geometry Seminar

About the Lp theory for the non-cutoff Boltzmann equation

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Abstract: In this talk we discuss different technical elements to obtain a priori estimates for Lp norms of weak solutions to non-cutoff kinetic equations using as example the homogeneous/inhomogeneous Boltzmann equation. Rather than a detailed-proof talk, we point out difficulties and give some intuition related to the main steps of the strategy. In particular, we discuss the localization process of Boltzmann type operators which cover an ample range of operators such as the fractional Laplacian.

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