Harnack inequalities for Kolmogorov operators & applications to kinetic models

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In this talk, we discuss some recent results on Harnack inequalities for a class of ultraparabolic equations in divergence form with measurable coefficients. We will present a sketch of the proof recently proposed in a joint work with Annalaura Rebucci and we will conclude showing some applications to asymptotic estimates for kinetic models (a Landau toy model and relativistic Kolmogorov equation).