KINETIC THEORY, HYPERBOLIC PDES AND GEOMETRIC MEASURE THEORY

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One of the most fruitful interaction between kinetic theory and non linear hyperbolic PDEs has been the so-called kinetic formulation of conservation laws. Very recently, within the HYKE network, a beautiful structure theorem for non smooth solutions of some nonlinear hyperbolic PDEs has been obtained. The proof is an unusual blend of kinetic ideas, blow up techniques and tools coming from geometric measure theory.