

BV-like structure and metric entropy for HJ equations with non Tonelli Hamiltonian

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Abstract

In this talk, we will present some recent results on the BV regularity of a viscosity solution of the Hamilton-Jacobi equation

$$u_t(t, x) + H(D_x u(t, x)) = 0.$$

Moreover, inspired by a question posed by Lax in 2002, we shall establish sharp estimates on the metric entropy for the associated Hopf-Lax semigroup. This study could eventually provide a measure of the order of resolution of a numerical method for the equation.