

Structure and regularity of entropy solutions to scalar conservation laws

Elio Marconi

University of Basel
E-mail: elio.marconi.re@gmail.com

Abstract

We consider scalar conservation laws in one space dimension without convexity assumptions on the flux. The notion of Lagrangian representation will be introduced for bounded entropy solutions in order to investigate the structure of their characteristics. This also allows to deduce a priori regularity estimates in terms of spaces of functions with generalized bounded variation