

1145-35-1095

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Systems of conservation laws in a single space variable are (roughly speaking) well-posed in the space of functions of bounded variation. Linear multidimensional hyperbolic partial differential equations are well-posed in Sobolev spaces H^s (for any s) and quasilinear systems enjoy short-time well-posedness for sufficiently large s . A number of researchers have looked at weak solutions of one-dimensional conservation laws with a view to bridging the gap between these theories. I will summarize their results, and outline some approaches that will not work, and some that may have some promise. (Received September 18, 2018)