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Michael Sever* (sever@math.huji.ac.il), Department of Mathematics, The Hebrew University, Givat Ram, Jerusalem, Israel. *An admissibility condition for weak solutions of multidimensional nonlinear systems of conservation laws.*

An admissibility condition for weak solutions of systems of conservation laws is presented, which is valid in any number of dimensions and does not require hyperbolicity of the underlying system. For the Cauchy problem for scalar conservation laws or for hyperbolic systems in one space dimension, criteria similar to familiar entropy conditions on the discontinuities are obtained. In higher dimensions, however, admissibility for weak solutions of the Cauchy problem for hyperbolic systems generically fails. In very special cases, admissibility is recovered for weak solutions of reduced systems corresponding to stationary or self-similar systems. (Received September 05, 2016)