

# A brief review of shock and rarefaction waves in hyperbolic conservation laws

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We present a fundamental theory of shock and rarefaction waves for hyperbolic conservation laws. As a simple model, the p-system in one space dimension, which is one of the simplest hyperbolic model arising in gas dynamics, will be discussed. If time permits, we talk about some interesting issues for these waves, for instance, the stability of shock waves and the asymptotic behavior of rarefaction waves.