1131-35-106   **Geng Chen***, Department of Mathematics, University of Kansas, Lawrence, KS 66045. *Recent progress on 1-d compressible Euler equations.*

The global-in-time existence of large BV solution for 1-d isentropic compressible Euler equations (p-system) is a long-standing open problem. It is reasonable to divide the problem into two sub-problems: How to find a time dependent lower bound on density for the solution, and how to find the global BV bound of the solution in $0 < t < T$ when we assume that the density is bounded away from zero in $0 < t < T$. In this talk, we will discuss the recent progress on both of these two problems. The talk includes joint work with Alberto Bressan and Qingtian Zhang. (Received July 07, 2017)