

1129-35-458

Feride Tiglay* (tiglay.1@osu.edu), 1179 University Dr, Newark, OH 43055, and **Barbara L. Keyfitz**, Columbus, OH. *Nonuniform dependence on initial data for compressible gas dynamics.*

We start with the classic result that the Cauchy problem for ideal compressible gas dynamics is locally well posed in time in the sense of Hadamard; there is a unique solution that depends continuously on initial data in Sobolev spaces with high enough index. We prove that the data to solution map for periodic data in two dimensions although continuous is not uniformly continuous. (Received March 21, 2017)