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Thomas E Carty* (tcarty@bradley.edu), 1501 W Bradley Ave, Bradley Hall 445, Peoria, IL 61625. *Grossly Determined Solutions for a Boltzmann-like Equation*. Preliminary report.

In gas dynamics, the connection between the continuum physics model offered by the Navier-Stokes equations and the molecular theory of gases governed by the Boltzmann equation are not always transparent in the known solutions of these different models. In this talk, I attempt to bridge the gap between the two models by deriving a subclass of solutions to a Boltzmann-like equation and demonstrate that they are akin to the classical equilibrium solutions of gas dynamics offered by Hilbert, and Chapman and Enskog. (Received January 14, 2015)