

962-70-674

Alexandros Sopasakis* (sopasak@math.chalmers.se), Department of mathematics, Chalmers Institute of Technology, Goteborg University, 412 96 Goteborg, Sweden. *Existence and Uniqueness of a Local (in Time) Solution for the Prigogine- Herman Kinetic Equation of Vehicular Traffic.* Preliminary report.

The Prigogine-Herman nonlinear kinetic equation of vehicular traffic models traffic flow. This partial differential equation has recently been shown to exhibit a more realistic behaviour of travelling vehicles regarding the unstable regime of high concentrations unlike most other similar models of vehicular traffic. Using methods similar to the ones carried out by Harold Grad for the Boltzmann equation, a local (in time) existence and uniqueness of solutions is proven regarding this equation. Global existence issues are also considered (Received September 20, 2000)