

1043-35-17

Paul M Gauthier* (gauthier@dms.umontreal.ca), Dept. de mathematiques et de statistique, CP-6128 Centreville, Montreal, Quebec H3C 3J7, Canada, and **Nikolai N Tarkhanov**. *Rational Approximation for a Quasi-linear Parabolic Equation Occurring in Aerodynamics.*

Approximation theorems, analogous to known results for linear elliptic equations, are obtained for solutions of the heat equation. Via the Cole-Hopf transformation, this gives rise to approximation theorems for one of the simplest examples of a nonlinear partial differential equation, Burgers' equation. (Received June 30, 2008)