

1046-35-733

Monique R Taylor*, 1229 Spruce Dr., Zebulon, NC 27597. *Dafermos regularization of a modified kdV Burgers equation.* Preliminary report.

This project involves Dafermos regularization of partial differential equations of order higher than 2. We show the existence of Riemann-Dafermos solutions near a given Riemann solution using geometric singular perturbation theory. Also we study the stability of Riemann-Dafermos solutions as stationary solutions by means of linearization. (Received September 10, 2008)