962-35-951 **Gui-Qiang Chen**, **David Hoff** and **Konstantina Trivisa*** (trivisa@math.umd.edu), Department of Mathematics, University of Maryland, College Park, MD 20742. *On the Navier Stokes Equations for Compressible Reacting Flow with Large Discontinuous Initial Data.*

The existence, regularity and large time behavior of global discontinous solutions to the Navier Stokes equations for compressible, reacting flow with large discontinuous initial data are discussed. The model under consideration describes dynamic combustion. We show that the velocity and the internal decay asymptotically, while the discontinuities of the density, the pressure and the reactant mass fraction persist even asymptotically. Finally, we identify the necessary and sufficient conditions on the initial data for the complete burning as $t \to$ infinity. (Received September 29, 2000)