1033-35-251 Mikhail Perepelitsa* (mikhail.perepelitsa@vanderbilt.edu). Boundary behavior of compressible, viscous fluid flows with discontinuous density.

In this talk we will discuss some results on the existence of the weak solutions to the Navier-Stokes equations for the motion of compressible, viscous fluid flows in the half-space with the no-slip boundary condition. The emphasis is made on the boundary behavior of weak solutions with the discontinuous density component. (Received September 12, 2007)