1030-35-59 Misha Perepeltisa* (mikhail.perepelitsa@vanderbilt.edu), 1326 Stevenson Center, Vanderbilt Univ., Nashville, TN 37240. Boundary behavior of compressible, viscous fluid flows.

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 field. (Received July 12, 2007)