1078-35-284 **David Hoff**, Bloomington, IN , and **Misha Perepelitsa*** (misha@math.uh.edu), Houston, TX 77096. *Boundary tangency for density interfaces in compressible viscous fluid flows.*

In this talk we show that, for solutions of the Navier-Stokes equations of two-dimensional, viscous, compressible flow, curves which are initially transverse to the spatial boundary and across which the fluid density is discontinuous become tangent to the boundary instantaneously in time. This effect is seen to result from the strong pressure gradient force, which in this case includes a vector measure supported on the curve, together with the fact that singularities in this system are convected with the fluid velocity. (Received December 12, 2011)