1030-76-331   **Elaine M. Cozzi*** (`ecozzi@math.utexas.edu`), 6379 Ebdy St., Pittsburgh, PA 15217, and **James P. Kelliher**. *Vanishing viscosity with vorticity in a borderline space of Besov type.*

We establish the convergence of solutions of the two-dimensional Navier-Stokes equations to a solution of the two-dimensional Euler equations in the energy norm as viscosity tends to zero when initial vorticity is in a borderline space of Besov type introduced by Vishik. Our methods allow us to extend a global in time uniqueness result proved by Vishik for the Euler equations in this space. (Received August 06, 2007)