

1054-76-209

Elaine M. Cozzi* (ecozzi@andrew.cmu.edu). *The axisymmetric Euler equations with initial vorticity in borderline spaces of Besov type.*

Vishik established the existence and uniqueness of solutions to the two-dimensional Euler equations in borderline spaces of Besov type. His result implies, among many things, the uniqueness of a solution to the two-dimensional Euler equations in the space bmo . We extend some of Vishik's results to the case of axisymmetric initial velocity in three dimensions. We also prove convergence in the limit of vanishing viscosity for these types of solutions. (Received September 14, 2009)