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Anne Bronzi* (annebronzi@gmail.com), **Milton Lopes Filho** and **Helena Nussenzveig Lopes**. *Global existence of a weak solution of the Euler equations with helical symmetry and L^p vorticity.*

In this talk we will prove global existence of a weak solution of the 3D incompressible Euler equations, in full space, for an initial velocity with helical symmetry, without swirl and whose initial vorticity is compactly supported in the axial plane and belongs to L^p , for some $p > 4/3$. This result is an extension of the existence part of the work of B. Ettinger and E. Titi, who studied well-posedness of the Euler equations with helical symmetry without swirl, with bounded initial vorticity, in a helical pipe. (Received September 17, 2013)