James P Kelliher* (kelliher@math.ucr.edu), Milton C Lopes Filho and Helena J Nussenzveig Lopes. Bounded vorticity, bounded velocity (Serfati) solutions to 2D Euler equations in an external domain.

In a short note in 1995, Philippe Serfati established the existence and uniqueness of solutions to the 2D Euler equations in the whole plane when the initial vorticity and initial velocity are bounded. We describe an extension of this result to an external domain in the plane, and discuss related issues of stability. (Received December 11, 2011)