

STABILITY OF VORTICES IN EQUILIBRIUM WITH A CYLINDER

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ABSTRACT. The stability of steady, inviscid vortex pairs standing behind and above a circular cylinder are studied by discretizing equations derived from contour dynamics. These flows were found previously using different methods in our paper “Some steady vortex flows past a circular cylinder”, *Journal of Fluid Mechanics*, 409 (2000), 13-27. The flows behind the cylinder may be thought of as desingularizing the Föppl pair of point vortices, and they have been found to be neutrally stable with respect to symmetric perturbations. The vortices above the cylinder have a single mode of instability.

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