Abstract Submitted
for the DFD07 Meeting of
The American Physical Society

Vortex methods for bounded motion on a spherical surface[1] AMIT SURANA, MIT, DARREN CROWDY, Imperial College London — We discuss the motion of both point vortices and uniform vortex patches in bounded domains on a spherical surface. The fluid domains are taken to be "basins" having solid walls which act as impenetrable barriers for the flow. A theoretical formulation for the general N point vortex problem will be given. In addition, we describe a versatile numerical algorithm (a generalized "contour dynamics" scheme) to compute the motion of vortex patches in domains of arbitrary geometrical complexity on a sphere.

[1]EPSRC

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Date submitted: 06 Aug 2007 Electronic form version 1.4