1086-35-1277   **Samuel Walsh*** (`walsh@cims.nyu.edu`). *Steady water waves with compactly supported vorticity.*
In this talk, we shall discuss some recent results on the existence of two-dimensional, traveling, water waves with the special property that the vorticity is a Dirac measure (a point vortex), or supported in a compact set (a vortical patch). Such waves arise naturally, for instance, if we think of a classical, irrotational traveling wave with some interesting but localized dynamics below the surface.

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