1126-76-257 **Anand U Oza*** (oza@cims.nyu.edu), 251 Mercer Street, Room 1007, New York, NY 10012, and **Leif Ristroph** and **Michael Shelley**. *Coarse-grained models for interacting flapping swimmers.*

We present the results of a theoretical investigation into the dynamics of interacting flapping swimmers. Our study is motivated by recent experiments using a one-dimensional array of wings in a water tank, in which the system adopts "schooling modes" characterized by specific spatial phase relationships between swimmers. We develop a discrete-time dynamical system that models the swimmers as hydrofoils shedding point vortices, and study the existence and stability of steady solutions. Our model may be used to understand how schooling behavior is influenced by hydrodynamics in more general contexts. (Received January 15, 2017)