

1116-VC-1579 **Owen Michael Richfield*** (orichfie@tulane.edu), #5342, 31 McAlister Dr., New Orleans, LA 70118, and **Paul Cripe** (pcripe@tulane.edu) and **Julie Simons**. *Sperm pairing and measures of efficiency in planar swimming models.*

In order to fertilize the egg, sperm of certain species engage in cooperative swimming behaviors. These cooperative motility patterns result in differences in velocity and efficiency of swimming. In order to understand the empirical effects on the swimming of sperm as a result of various cooperative swimming behaviors, we employ a simple preferred curvature model for a single-flagellum or multi-flagellum system. Flagella are simulated using a two-dimensional mass-spring model, and regularized Stokeslets are employed to simulate the viscous environment these flagella swim through. (Received September 20, 2015)