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**Samantha J. Brozak\*** (sbrozak@asu.edu). *Modeling Nutrient-Plankton Reactions in Oceanic Chain Vortices*. Preliminary report.

The Agulhas system is a key component in global ocean thermohaline circulation and transports warm, briny water from the Indian Ocean to the Southern Atlantic Ocean via the shedding of eddies, known as Agulhas rings. Using direct numerical simulations, we model simple plankton interactions in simulated chain vortices based on Agulhas rings to investigate anomaly residency and dispersion times, stretching, and the dependence of reaction variability on initial conditions. (Received September 15, 2017)