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Seth Armstrong, Sarah Duffin* (duffin@suu.edu) and **Jianlong Han**. *A Numerical Scheme for the Lotka-Volterra Competition Model with Nonlocal Interaction.*

The Lotka-Volterra competition model involving nonlocal diffusion terms can be used to model two species competing with each other for the same prey. We introduce a new semi-implicit numerical scheme that is shown to mimic the dynamical properties of the true solution. We prove that the scheme is uniquely solvable and unconditionally stable. The convergence rate of the numerical solution to the true solution of the system is also given. (Received September 01, 2020)