Henri Berestycki and Tianling Jin*, 5734 S. University Ave, Department of Mathematics, University of Chicago, Chicago, IL 60637, and Luis Silvestre. Propagation in a nonlocal reaction diffusion equation with spatial and genetic trait structure.

In joint work with H. Berestycki and L. Silvestre, we study the interplay between traits present in a species and how the species interacts with the environment, and analyze models that take into account jointly the evolution and the ecology. We prove existence and uniqueness of traveling fronts, and asymptotic speed of propagation for a nonlocal reaction diffusion equation with spatial and genetic trait structure. (Received September 16, 2014)