1138-92-202   **Bingtuan Li*** (`bing.li@louisville.edu`). *Multiple Invasion Speeds in a Two-Species Integro-Difference Competition Model.*

We discuss an integro-difference competition model for the case that two species consecutively invade a habitat. We show that if a species spreads into a traveling wave of its rival, or if two species expand their spatial ranges in both directions, in a direction where open space is available, the species with larger invasion speed can always establish a wave moving into open space with its own speed. We demonstrate that when one species is stronger in competition, under appropriate conditions, the speeds at which the boundaries between two species move can be analytically determined. In general there are multiple invasion speeds in the model. It is possible for a species to develop two separate waves propagating with different invasion speeds. It is also possible for each species to establish a single wave spreading with distinct speeds in both directions. The mathematical analysis relies on linear determinacy and new techniques developed (Received February 09, 2018)