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Inside Dynamics for Integrodifference Equations

In this talk I will discuss recent modelling and analysis of integrodifference equation models for the asymptotic genetic structure of populations undergoing range expansion. To analyze the genetic consequences for long term population spread, we decompose the solution into neutral genetic components called neutral fractions. The "inside dynamics" then describe the spatiotemporal evolution of these neutral fractions. Extensions are made to include stage-structure in the population dynamics and mutations in the genetic fractions. This work is joint with Nathan Marculis and Roger Lui.