Nonlinear Age-Structured Population Dynamics with Non-local Diffusion

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Recently there has been considerable interest in the theory of nonlinear age-structured population dynamics incorporating spatial effects, and specially, diffusive processes into the models. Random diffusive age-structured populations have been studied by many researchers. However, there are few results on the nonlinear age-structured population dynamics with non-local diffusion. Such diffusion processes are more applicable to many biological populations compared with random diffusion processes. In the present study our objective is to develop age-structured population dynamics with non-local diffusion.