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*Nonlinear age-structured population models with nonlocal diffusion and nonlocal boundary conditions*

In this paper, we develop the basic theory for age-structured population models with nonlocal diffusion and nonlocal boundary conditions. We first apply the theory of integrated semigroups and non-densely defined operators to the linear equations, study the spectrum, and analyze the asymptotic behavior via asynchronous exponential growth. Then we consider a semilinear equation and a nonlinear equation and establish the existence and stability of the nontrivial equilibria.