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Keng Deng* (deng@louisiana.edu), Department of Mathematics, P. O. Box 41010, University of Louisiana at Lafayette, Lafayette, LA 70504. *On a nonlocal reaction-diffusion population model.*

In this talk, we consider a nonlocal parabolic initial value problem that models a single species which is diffusing, aggregating, reproducing and competing for space and resources. We establish a comparison principle and construct monotone sequences to show the existence and uniqueness of the solution to the problem. We also obtain a sufficient condition for permanence of the population. (Received September 21, 2006)