Diffusive Logistic Problems with Harvesting

Elliott Hollifield

Mathematics and Computer Science
The University of North Carolina at Pembroke
USA
e-mail: elliott.hollifield@uncp.edu

Abstract

We discuss existence of positive solutions to classical and fractional Laplacian problems involving logistic reaction terms with harvesting. We use the method of sub- and super solutions to establish existence results. We also discuss numerical bifurcation diagrams and profiles of positive solutions, corresponding to theoretical results, using a Finite Element Method.