

Asymptotic behavior of positive solutions for a degenerate logistic equation with mixed local and non-local diffusion**Authors:**

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Abstract: In this work, we analyze a stationary degenerate logistic equation with both local and non-local dispersion diffusion. Primarily employing bifurcation results, sub- and supersolution methods, and maximum principles, we establish results regarding the existence, non-existence, and uniqueness of positive solutions. Additionally, using appropriate large solutions, we conduct a detailed study of the asymptotic behavior of the solutions with respect to one of the equation's parameters, showing that the presence of the non-local diffusion can drastically change this point-wise behavior when compared with the local case.

References:

- [1] W. Cintra, C. Morales-Rodrigo and A. Suárez. Asymptotic behavior of positive solutions for a degenerate logistic equation with mixed local and non-local diffusion. Preprint