Bounds for solutions of a population model with infinite delay and non-local effect

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ABSTRACT

We consider a Volterra reaction-diffusion equation with infinite delay, non-local effect and variable coefficients and by means of associated equations with constant coefficients and comparison results we give conditions that guarantee that the solution remains inside a fixed interval that depends on the coefficients. Additionally, we present some numerical examples.

Key Words: reaction-diffusion, Volterra, delay, non-local effect, population model.

AMS Classification: 35

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