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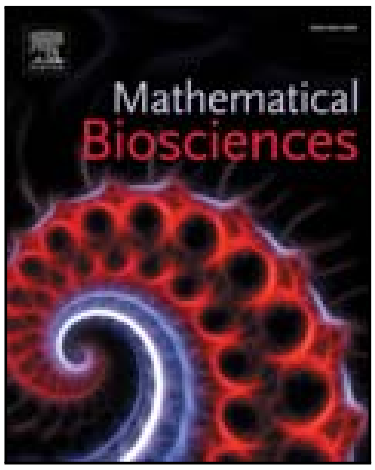

AN APPROACH OF THE EXACT LINEARIZATION TECHNIQUES TO ANALYSIS OF POPULATION DYNAMICS OF THE MOSQUITO Aedes aegypti

Célia A. dos Reis , Helenice de O. Florentino , Diego Cólon , Suélia R. Fleury Rosa , Daniela R. Cantane

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Highlights

- The analyzing via exact linearization techniques of a system describing the population dynamics of *aedes aegypti* was proposed.
- We proposed the design of a control law for the vector control population.
- We proposed a VNS (Variable neighborhood search) Algorithm to determine optimal control of the *Aedes aegypti* population.
- VNS is easy to implement and has proved a good tool for determining optimum controls.
- A decrease can be observed in all segments of the mosquito population with the application of the proposed methodology.

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