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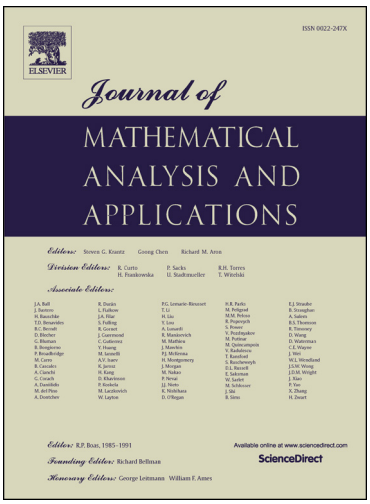

Optimal birth control problems for a nonlinear vermin population model with size-structure

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Highlights

- Optimal control problem of population dynamics is an important research field. However, more attention is paid to optimal harvesting. In this paper, we focus on optimal birth control. Our conclusions would be useful for managing the vermin.
- The least cost-size problem and least cost-deviation problem are studied by different methods.
- We prove the population density depends continuously on the initial value and the control variable, respectively.