

Global dynamics of stochastic predator-prey model with mutual interference and prey defense

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In this talk, we will investigate a stochastic predator-prey model with mutual interference, and various Holling type functional responses, where the prey is able to release toxins as defense against a predator. This can also be generalized to include group or herd defense, toxin production and mimicry. We establish local and global existence for the stochastic model, and perform various numerical simulations to support our theoretical results.

References

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