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Dynamical analysis in a differential algebraic bio-economic model with stage-structured and stochastic fluctuations

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- > A stage-structured bio-economic model with stochastic fluctuation and the harvest effort is established by differential–algebraic equations.
- > The model is simplified by stochastic averaging method.
- > Stability of equilibria and bifurcations are presented.
- > The possibilities and the positions of the Hopf bifurcation will be change with stochastic fluctuations.

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