

# Bifurcations in stochastic delay differential equations

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The use of simulated solution trajectories as a tool in understanding the behaviour of stochastic delay differential equations is widespread. Here we consider the extent to which such an approach can be used to provide reliable information about how and when the dynamical behaviour of solutions to an equation display fundamental changes in nature. We show that there are several ways in which the simulated solutions may be influenced by the simulation method adopted and we use these insights to gain a clearer understanding of the bifurcations of the underlying problem.