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Chaotic properties of some partial differential equation with a random delay describing cellular replication

We study some model of a cell population, which is based on a model proposed by Mackey and Rudnicki in [1]. Our model is described by a partial differential equation of a transport-type with a random delay. We consider a random dynamical system generated by this equation and describe its chaotic behaviour.

References

 M. C. Mackey and R. Rudnicki, Global stability in a delayed partial differential equation describing cellular replication, J. Math. Biol., 33, 89–109.