

Accepted Manuscript

Nontrivial periodic solution for a stochastic brucellosis model with application to Xinjiang, China

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PII: S0378-4371(18)30785-4
DOI: <https://doi.org/10.1016/j.physa.2018.06.061>
Reference: PHYSA 19755

To appear in: *Physica A*

Received date: 16 April 2018
Revised date: 8 June 2018

Please cite this article as: L. Wang, K. Wang, D. Jiang, T. Hayat, Nontrivial periodic solution for a stochastic brucellosis model with application to Xinjiang, China, *Physica A* (2018), <https://doi.org/10.1016/j.physa.2018.06.061>

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1. A stochastic periodic brucellosis model is proposed by introducing the effect of environmental white noise.
2. Existence of nontrivial stochastic periodic solution is shown by constructing a novel combination of Lyapunov functions.
3. As an application, this model is used to simulate the newly acute human brucellosis data for each season from 2010 to 2014 in Xinjiang.

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