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Mosquitos do not matter, dynamically!

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ABSTRACT

In vector borne diseases the human hosts' epidemiology often acts on a much slower time scales than the one of the mosquitos transmitting as a vector from human to human, due to their vastly different life cycles. We investigate [1] in how far the fast time scale of the mosquito epidemiology can be slaved by the slower human epidemiology, so that for the understanding of human disease data mainly the dynamics of the human time scale is essential and only slightly perturbed by the mosquito dynamics.

References

- [1] Rocha, F., Aguiar, M., Souza, M. and Stollenwerk, N. (2013) *Time-scale separation and centre manifold analysis describing vector-borne disease dynamics*, International Journal of Computer Mathematics, 90 (10), pp. 2105–2125.