Global attractivity of the periodic solution for a periodic model of hematopoiesis

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Abstract

In this presentation, we show sufficient conditions for the global attractivity of the positive periodic solution of the generalized periodic model of the hematopoiesis

$$x'(t) = -a(t)x(t) + \sum_{i=1}^{m} \frac{b_i(t)}{1 + x(t - \tau_i(t))^n},$$

with $0 < n \leq 1$. We emphasize that the result presented improves previous ones in the literature.

At the end of this presentation, a numerical example is given, illustrating the effectiveness of the new criterion.

Teresa Faria is a co-author of this research.