Review of: "Periodic second-order systems and coupled forced Van der Pol oscillators"

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Potential competing interests: No potential competing interests to declare.

Report on the paper

Periodic second-order systems and coupled forced Van der Pol oscillators

By

F. Minhos and S. Perestrelo

In this paper, the authors study the existence and localization of solutions for periodic solutions of second-order nonlinear coupled planar systems, without requiring the non-linearities .

The authors use variations of the Nagumo conditions, the Topological Degree Theory, and techniques of orderless upper and lower solutions. The authors give numerical examples and apply their results to a system of two coupled Van der Pol oscillators .The problem considered is interesting. The proofs are correct.

I can recommend this paper for publication in the Qeios Journal. The authors should take into account the following minor misprint:

-Page 6, line 15, ""\alpha_{1}^{0}(t)\leq w(t) \leq \beta_{1}^{0}(t)"$

replaced by $"\alpha_{2}^{0}(t)\leq w(t) \leq \beta_{2}^{0}(t)"$