

# Accepted Manuscript

System Stability Analysis Via A Perturbation Technique

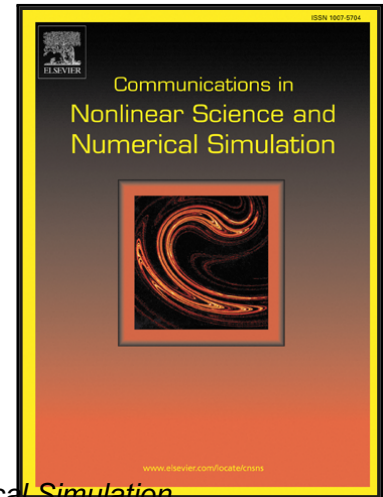
Laigang Guo, Yufu Chen

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**Highlights**

- We give a discriminant for judging the stability of differential dynamical systems.
- The discriminant is a rational expression in the coefficients of the original system.
- How to transform a differential dynamical system to the normal form are shown , which is the origin of the discriminant.
- This method is more simple and practical than the traditional Lyapunov method which needs a suitable Lyapunov function.

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