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An Elliptic Lindstedt-Poincaré Method for Limit Cycle Analysis

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Abstract An elliptic Lindstedt-Poincaré(L-P)method is presented for the limit cycle analysis of the generalized Van der Pol equations, in which the Jacobian elliptic functions are employed instead of the usual circular functions in the classical L-P perturbation procedure. The solution obtained by this method has much higher accuracy than other elliptic function methods, which gave only first order approximate solution.

Keywords limit cycle, elliptic functions, L-P method

· 简 讯 ·

《数学生态学导论》一书出版

我校生物学系余世孝教授根据多年的教学与科研成果而编著的《数学生态学导论》一书,已于1995年8月由科学技术文献出版社出版。全书27万字,内容丰富,并具有新颖、全面、系统等特点。该书填补了我国在此领域教材的空白。

数学生态学是当代生态学领域中的一个重要分支。余世孝教授深入浅出地阐明了数学生态学原理和概念,从种群动态模型、物种生态位测度、聚类与判别分析至排序等方面,都有明确的阐述。

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