

عنوان مقاله:

Multiple Scales Solution for General Nonlinear Continuous Systems in Complex Form

محل انتشار:

سومین کنفرانس بین المللی آکوستیک و ارتعاشات (سال: 1392)

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خلاصه مقاله:

In this paper, the method of multiple scales is used to study free vibrations and primary resonances of geometrically nonlinear spatial continuous systems with general quadratic and cubic nonlinear operators in a complex form. It is found that in the free vibrations of general continuous systems in a complex form, both forward and backward modes are excited. This situation is in contrast to the primary resonances in which only forward modes are excited. This analysis is applicable to general continuous systems with gyroscopic and Coriolis effects and includes many nonlinear problems as a special case.

کلمات کلیدی:

;Perturbation Method, Method of multiple scales, Complex partial differential equations

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