Acta Mechanica Sinica

The Chinese Society of Theoretical and Applied Mechanics (CSTAM)

CSTAM | Home | About the journal | Editorial board | Subscriptions | Submit | Contacts us

Journals of CSTAM

Journal search Article Title [▼] [　　　　] GO **Advanced search** Year [Year ▼] [No. ▼] GO

Research Papers   Current Issue | Next Issue | Archive | Adv Search   << Previous Articles | Next Articles >>

The method of variation on parameters for integration of a generalized Birkhoffian system

Yi Zhang

College of Civil Engineering, Suzhou University of Science and Technology, 215011 Suzhou, China

Abstract	**Reference**	**Related Articles**

Download: PDF (66KB)   HTML (1KB)   **Export:** BibTeX or EndNote (RIS)   **Supporting Info**

Abstract This paper focuses on studying the integration method of a generalized Birkhoffian system. The method of variation on parameters for the dynamical equations of a generalized Birkhoffian system is presented. The procedure for solving the problem can be divided into two steps: the first step, a system of auxiliary equations is constructed and its general solution is given; the second step, the parameters are varied, and the solution of the problem is obtained by using the properties of generalized canonical transformation.The method of variation on parameters for the generalized Birkhoffian system is of universal significance, and we take a nonholonomic system and a nonconservative system as examples to illustrate the application of the results of this paper.

Service
- Email this article
- Add to my bookshelf
- Add to citation manager
- Email Alert
- RSS

Articles by authors

Cite this article:

Yi Zhang.The method of variation on parameters for integration of a generalized Birkhoffian system[J] Acta Mechanica Sinica, 2011,V27(6): 1059-1064