

Application of variational iteration method to nonlinear population dynamics models

Ahmet YILDIRIM

*Department of Mathematics, Science Faculty, Ege University, 35100
Bornova-zmir, Turkey*

Abstract

In this study, the variational iteration method (VIM) is employed to derive approximate series solutions of nonlinear population dynamics models. The nonlinear models considered are the multispecies Lotka-Volterra equations. The accuracy of this method is examined by comparison with the available exact solution and other methods.

Keywords: Variational iteration method, Lotka-Volterra equations

E-mail address: ahmet.yildirim@ege.edu.tr