Numerical Solution of a System SEIR Nonlinear ODEs by Runge-Kutta Fourth Order Method

Abstract

In this paper, we introduce the numerical solution of the system of SEIR nonlinear ordinary differential equations, which are studied the effect of vaccine on the HIV (Human Immunology virus). We obtained the numerical solutions on stable manifolds by Runge-Kutta fourth order method.

References

1. L. Bubniakov, the Mathematics of Infectious Diseases, Bratislav 2007.


Index Terms

Computer Science

Applied Mathematics

Keywords

SEIR model; nonlinear ordinary differential equations; Runge-Kutta fourth order method.