

On Determining of Dynamical System Velocity Field

Dmitri A. Ovsyannikov

Saint-Petersburg State University, Russia

In this paper new approach to find velocity field of dynamical system by given density distribution of charged particles is suggested. Liouville equation is used for formulation of the optimization problem. Thus the problem of determination of velocity field is reduced to solving of strong-elliptic system of Euler-Lagrange equations. Developed method is applied to the problem of forming given beam dynamics.