

An introduction to perpetual points in nonlinear dynamical systems and its applications

Awadhesh Prasad
Department of Physics and Astrophysics,
University of Delhi, Delhi 110007, India.
Email: awadhesh@physics.du.ac.in

In this talk a new class of critical points dynamical systems, termed as "perpetual points", where acceleration becomes zero but the velocity remains non-zero, will be discussed. The velocity at these points is either maximum or minimum or of inflection behavior. Bifurcation behavior as a function of parameters will be presented. The applications of these perpetual points will be highlighted.