

Abstract:

Dynamics of Henon and Lozi

Štimac

Sonja

Mathematics MAT

ODE and Dynamical Systems, Typology

basic

Strange attractors are a well-known phenomenon in chaotic dynamics. Although not the only of its kind, the Hénon attractor is a standard and extensively studied component of chaotic dynamics. The fact that the Hénon-like attractors model the behavior of homoclinic tangencies diffeomorphisms, makes them a universal structure in the onset of chaos. Much work has been devoted to the studies of two-parameter families of horseshoe-like maps of the plane such as the Hénon maps and the Lozi maps, but the understanding of their dynamics is still very incomplete. The aim of HeLoMa project is to bring together the researcher from Croatia and experts from the U.S. over a period of three years to work toward better understanding of dynamics of the horseshoe-like maps of the plane and strange attractors which arise in such dynamical systems.

Does this proposal possess any of the sensitive ethical issues detailed in the ethical issues table?:

No.