

On parameter loci of the Hénon family

Yutaka Ishii (Kyushu University, Japan)

Abstract:

In this talk I will report my ongoing project with Zin Arai (Hokkaido University). The purpose of our collaboration is to characterize the hyperbolic horseshoe locus and the maximal entropy locus of the Hénon family defined on \mathbb{R}^2 . Our basic strategy is to extend the Hénon map as well as the parameter space to \mathbb{C}^2 and investigate its complex dynamical and complex analytic properties. We also employ interval arithmetic to verify certain numerical criteria which imply combinatorial and dynamical consequences.