



ÇANKAYA UNIVERSITY
FACULTY OF ARTS AND SCIENCES
DEPARTMENT OF MATHEMATICS

SEMINAR

Complex Dynamics in Higher Dimension

SPEAKER : Assist. Prof. Dr. Özcan Yazıcı

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TIME : 15:30

PLACE : Çankaya University (Central Campus), R-213

Abstract

Complex dynamics is the study of iterations of holomorphic functions. In one variable many results were obtained by the tools of complex analysis, like Montel's theorem. However, in higher dimension, those tools are not available. Later it was realized that complex potential theory can also be used in dynamical studies in one variable. This idea inspired the study of complex dynamics in several variables. In this talk we will first mention some well known results in one variable dynamics. Then we will discuss dynamics of the polynomial automorphisms of \mathbb{C}^2 , namely, Hénon maps. For these maps, we can construct Fatou sets, Julia sets and invariant probability measures which are analogous to those in the complex plane. If time permits, some recent results on the dynamics in higher dimension will be given.

All interested are cordially invited.

ADDRESS : Eskişehir Yolu 29.km, 06810, Etimesgut/ANKARA