

Title

The structure of the escaping set in complex dynamics

Abstract

Complex dynamics concerns the behaviour of points in the complex plane under iteration by a holomorphic function. This talk is particularly concerned with the iterative behaviour of transcendental entire functions such as exponential functions. The escaping set is the set of points that escape to infinity under iteration and plays a key role in complex dynamics. Much research in recent years has been motivated by Eremenko's conjecture that all the components of the escaping set are unbounded and has led to a much deeper understanding of the possible structures of the escaping set. This talk gives an overview of work in this area, particularly of joint work with Phil Ripon.