

The iteration of cubic polynomials

Part I: The global topology of parameter space

by

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Introduction

This series of papers is concerned with the way in which the space of polynomials of degree $d > 2$ is decomposed when the polynomials are classified according to their dynamic behavior under iteration. Our results are satisfying only for $d=3$.

According to Fatou and Julia, and the more recent work of Mañé, Sad, Sullivan, the main question to ask about a rational map is: *what are the orbits under iteration of*