

Near-neutral Renormalization and its applications in Complex Dynamics

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Near-neutral Renormalization controls how attracting periodic cycles evolve into repelling. We will first give a general overview of the theory. Then we will state uniform a priori bounds for neutral quadratic polynomials obtained in the near-degenerate regime in joint work with Misha Lyubich. In the end, we will discuss various applications, in particular, the existence of a mother hedgehog for all neutral quadratics.