Subhyperbolic rational maps on boundaries of hyperbolic components.  

Summary: In this paper, we prove that every quasiconformal deformation of a subhyperbolic rational map on the boundary of a hyperbolic component \( H \) still lies on \( \partial H \). As an application, we construct geometrically finite rational maps with buried critical points on the boundaries of some hyperbolic components.

MSC:

37F10 Dynamics of complex polynomials, rational maps, entire and meromorphic functions; Fatou and Julia sets  
37F12 Critical orbits for holomorphic dynamical systems  
37F31 Quasiconformal methods in holomorphic dynamics; quasiconformal dynamics  
37F46 Bifurcations; parameter spaces in holomorphic dynamics; the Mandelbrot and Multibrot sets  
37F20 Combinatorics and topology in relation with holomorphic dynamical systems

Keywords:
holomorphic dynamics; iteration of rational maps; deformations of rational maps; hyperbolic components; buried critical points

Full Text: DOI

References:


