

New Trends in Onedimensional Dynamics Celebrating the 70th anniversary of Welington de Melo

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Title: Quasi-conformal deformations of solenoidal Julia sets and conformal IFS

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Abstract: Using the technique of holomorphic motions we study the regularity of the limit set of the one-parameter family of holomorphic correspondences $(w - c)^q = z^p$. Plane Julia sets in this family are projections of Julia sets of holomorphic maps in C^2 (often skew products). Conformal iterated function systems hidden in the dynamics of this correspondence appear naturally in the form of dual Julia sets. We also estimate the Hausdorff dimension of the Julia set using the formalism of Gibbs states.