Homeomorphisms Between Julia Sets for Rational Maps

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We consider the family of rational maps $F_\lambda(z) = z^2 + \frac{\lambda}{z^2}$ with $\lambda \in \mathbb{C}$. In particular, we choose λ from the main cardioid of an accessible period-k baby Mandelbrot set with $k \geq 2$. When $k = 2$, there exists a dynamical invariant (identical to that used in the discussion of checkerboard Julia sets) to determine when the dynamics of two such maps are conjugate. When $k > 2$, we discuss the existence of a topological invariant for homeomorphisms between Julia sets of the same prime period.