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Rational Maps with Fatou Components of Arbitrary Connectivity Number

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Abstract. Periodic components of the Fatou set of a rational map are either simply, doubly or infinitely connected. However, preimages of these may possibly possess a higher finite connectivity. The purpose of this article is to study certain classes of generalized Blaschke products that possess Fatou components of a given arbitrary finite connectivity number.

Keywords. Iteration of rational functions, Fatou set, complex dynamical systems.

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