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Homeomorphism groups of basilica, rabbit and airplane Julia sets.

The airplane, the basilica and the Douady rabbit (and, more generally, rabbits with more than two ears) are well-known Julia sets of complex quadratic polynomials. Bruno Duchesne and I examined the groups of all homeomorphisms of such fractals and of all automorphisms of their laminations. In particular, we identified them with some kaleidoscopic group acting on dendrites or universal groups acting on biregular trees, realizing them as Polish permutation groups. From these identifications, we deduced algebraic, topological and geometric properties of these groups. This talk will present the identification of the groups and the results of this work.