CONJUGACY CLASSES OF DISJOINT-TYPE FUNCTIONS

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Complex dynamics deals with the behaviour of complex functions under iteration - the repeated application of the map. The complex plane can be divided into two sets: the Fatou set, where the iterates have a stable behaviour, and the Julia set, where the iterates behave chaotically.

The Julia sets of many transcendental entire functions (i.e. not polynomials) are so-called Cantor bouquets. Any two Cantor bouquets are homeomorphic to each other and thus similar. The question arises whether the functions under consideration have similar dynamical properties.

In this talk, we present conditions under which two such functions are conjugate on their Julia sets by a homeomorphism which can be extended to the entire plane.

This is joint work with Anna Benini and Lasse Rempe-Gillen.