

ESCAPING SINGULAR ORBITS IN CLASS \mathcal{B}

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In 1989, Eremenko conjectured for transcendental maps that every point in their escaping set can be connected to infinity by a curve in the escaping set. After this was proven to hold for functions in Class \mathcal{B} of finite order, the question of when those curves, called “hairs” or “rays”, land has been an active topic of research. Even if this might not always be the case, it has been shown for some functions with bounded postsingular set that their Julia set is structured as a (pinched) Cantor Bouquet, that is, an embedding in the plane of a straight brush (with possibly identified endpoints).

In this talk I will consider certain functions with *unbounded* postsingular set whose singular orbits escape at some minimum speed. In this setting, certain hairs will *split* when they hit critical points. I will present a new structure for their Julia set as a modified Cantor Bouquet that will allow me to conclude that their hairs, if maybe now with split ends, still land.