

1147-30-770

Mario Bonk* (mbonk@math.ucla.edu), Department of Mathematics, Los Angeles, CA 90095.

Expanding Thurston maps.

A branched covering map on a 2-sphere S^2 is a continuous map that is locally modeled on a rational map on the Riemann sphere. A critical point of such a map f is a point in S^2 where f is not a local homeomorphism. Thurston considered branched covering maps for which the forward orbit of each critical point under iteration is finite. These maps are now called Thurston maps.

In joint work with Daniel Meyer we considered Thurston maps that are expanding in a suitable sense. The study of these maps links diverse areas such as dynamical systems, classical conformal analysis, hyperbolic geometry, geometric group theory, and analysis on metric spaces. In my talk I will report on some recent developments in this area. (Received January 28, 2019)