1017-30-63 Fred Gardiner* (FGardiner@gc.cuny.edu), Yuanping Jiang and Guizhen Cui. Scaling Functions.

Circle expanding maps of a given degree which are uniformly asymptotically affine (uaa) comprise an infinite dimensional Teichmuller space which is complete with respect to Teichmuller's boundary dilatation metric. In this talk we describe a continuum structure on the dual Cantor set and necessary and sufficient conditions for a continuous function on the this set to be the scaling function of a uaa system. We observe that in degree 2 the conditions are compatible with a natural action of Thompson's F-group on the scaling functions. (Received February 10, 2006)