1047-30-402 **Mario Bonk*** (mbonk@umich.edu), Department of Mathematics, University of Michigan, Ann Arbor, MI 48109. *Uniformization of Sierpinski carpets.*

Let S be a Sierpinski carpet in the Riemann sphere whose peripheral circles are uniform quasicircles and are uniformly relatively separated. Then there exists a quasisymmetry thats maps S to a "round" Sierpinski carpet, i.e., one whose complementary components are round disks. Ingredients in the proof of this theorem are Koebe's circle uniformization theorem and Schramm's notion of transboundary extremal length. I will also discuss metric space versions of this statement and possible applications in geometric group theory. (Received February 02, 2009)