1154-37-2007

Charles C. Johnson* (ccjohnson@gmail.com), Bucknell University, 701 Moore Ave, Lewisburg, PA 17837, and Robert G. Niemeyer (niemeye1@msudenver.edu), Metropolitan State University of Denver, Department of Mathematical and Computer Scien, PO Box 173362, Campus Box 38, Denver, CO 80217. The wild, elusive singularities of the T-fractal surface, Part II.

This is part II of a two-part talk on the T-fractal translation surface, a fractal analog of an interval exchange transformation and the geometry and topology of elusive singularities of the T-fractal translation surface. In this talk we will begin by concluding from our previous talk that the T-fractal translation surface is not a true surface, in the strictest sense of the definition. We will then construct what we believe to be a suitable analog of an interval exchange transformation on the T-fractal translation surface and prove that every elusive singularity has a linear approach. As such, we will show that such points constitute a Cantor set of wild singularities, indicating that the current definition of wild singularities may be extended to include the fractal case. (Received September 17, 2019)