Thursday, January 19, 2017
4:30–5:20 p.m.
SAS 2102

Fractals, the Chaos Game, and the Contraction Mapping Theorem

Nathan Reading

One way of drawing a fractal shape uses a random process called the Chaos Game to produce a predictable (non-random) picture. For example:

The picture shows a set of points in the plane exhibiting self-similarity, as suggested by the colors. But to really understand this fractal, we need to explore an important theorem called the Contraction Mapping Theorem. We’ll only scratch the surface, but we’ll try to get a sense of the interesting ideas involved. No prior knowledge of fractal geometry will be assumed.

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SUM Series
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