Michigan Math Club Thursday at 4pm in the Commons Free Pizza and Pop

It Came from the 1.5-th Dimension! Austin Shapiro

Abstract for February 4, 2010

How long is the coastline of Michigan? Answer: It depends on how good your map is. With twists and turns on scales both large and small, the coastline seems to get longer as you add more detail. We can take inspiration from this to dream up some truly self-similar curves, of infinite length though bounded in a nutshell. These curves challenge the notions that "natural" means "smooth," that a curve can't fill a square, and that dimension must always be an integer.

