

1172-51-178

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*A Relative Fractal Drum for a Class of Plane-Filling Curves.*

This talk details the construction of a relative fractal drum (RFD) that can be used to determine the complex dimensions of a class of plane-filling curves and properly classify them as fractals. The development of the construction is described and applied to a Hilbert curve, a Peano curve, a non-example of an accordion “curve”, and then generalized for a larger class of plane-filling curves. A computer-generated 3D model of the Hilbert Curve RFD will be presented. Following that, a theorem from the author’s dissertation about the complex dimensions of any curve in this class of plane-filling curves will be shared. (Received August 26, 2021)