
ON SOME METRIC AND TOPOLOGICAL DIMENSION FUNCTIONS OF PEANO CONTINUA

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On some metric and topological dimension functions of Peano continua; abstract: We shall discuss properties of dimension functions $S\text{-Dim}$ and $H\ddot{o}\text{-Dim}$ of metric Peano continua and their topological versions $S\text{-dim}$ and $H\ddot{o}\text{-dim}$, analyze the relation between these dimension functions and classical fractal dimensions (such as the box-counting dimension). Also we discuss applications of the dimension functions $S\text{-dim}$ and $H\ddot{o}\text{-dim}$ to the (Kameyama) problem of recognizing Peano continua that are homeomorphic to deterministic fractals.