

Intermediate dimensions of Bedford-McMullen carpets

István Kolossváry

University of St Andrews

Abstract:

Intermediate dimensions were recently introduced to provide a spectrum of dimensions interpolating between Hausdorff and box-counting dimensions for fractals where these differ. In particular, the self-affine Bedford-McMullen carpets are a natural case for investigation, but until now only very rough bounds for their intermediate dimensions have been found. The aim of the talk is to present a precise formula for the full spectrum with some intuition behind it. Moreover, to highlight a surprising connection of the intermediate dimensions to the multifractal spectrum and Lipschitz equivalence of these carpets. Based on joint work with Amlan Banaji.