

1096-60-1236

Jan S Reimann*, Department of Mathematics, McAllister Bldg, University Park, PA 16802.

Effective fractal dimensions for point processes.

We introduce notions of effective fractal dimension for point processes. We study how they relate to generalized Renyi dimensions and investigate the consistency of estimators for these dimensions based on Kolmogorov complexity of point sets. We also study estimators based on compression algorithms instead of Kolmogorov complexity, and present some applications to seismological data. (Received September 13, 2013)