Title: Random expansions, infinite Bernoulli convolutions, and Local dimensions.

Abstract: For a certain class of algebraic bases $\beta > 1$, we consider the associated random β-transformation equipped with the unique measure ν_β of maximal entropy. For a suitable metric, we study the local dimension of ν_β. As a consequence, we are able to find the local dimension of the associated infinite Bernoulli convolution which can be seen as a marginal measure of ν_β.