



复旦大学数学科学学院 数学综合报告会

报告题目: The Cantor convolutions related to badly approximable parameters

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报告摘要:

We introduce a natural class of self-similar probability measures $\mu^{(r)}$ ($0 < r < 1$) on the real line \mathbb{R} , which we call the **Cantor convolutions**. They may be viewed as a triadic analogue of Bernoulli convolutions. Our main result proves that for parameters of the form $r = 3^{-\beta}$ with $\beta > 0$ badly approximable, the Cantor convolution $\mu^{(r)}$ has full Fourier dimension, $\dim_F(\mu^{(r)}) = 1$. This is a joint work with Xiang Fang, Xueqing Ma and Hongli Zhang.

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