

# Bernoulli convolutions

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## Abstract

The Bernoulli convolution with parameter  $\lambda$  is the law of the random variable:  $\sum X_i \lambda^i$ , where  $X_i$  are independent unbiased  $+1/-1$  valued random variables. If  $\lambda < 1/2$ , then the Bernoulli convolution is singular and is supported on a Cantor set. If  $1 > \lambda > 1/2$ , the question whether the Bernoulli convolution is singular or a.c. is a very interesting open problem. I will talk about some recent results about this problem, some of which are joint work with Emmanuel Breuillard.