

Estimates of mm-entropy of a stable Lévy process

Viktor Khamzin (SPbU)

The concept of mm-entropy -- implicit in Shannon's seminal work on information theory -- extends the classical notion of metric entropy. Whereas metric entropy quantifies the complexity of covering a fixed totally bounded set, mm-entropy concerns the covering of large-measure subsets by balls of a prescribed radius. This talk presents recent progress beyond the Gaussian framework. We study the path space of an α -stable Lévy process and in case $\alpha < 1$ obtain matching, order-sharp bounds for the asymptotic growth of its mm-entropy .