Colloquium

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PACKING DIMENSION OF IMAGES OF ADDITIVE LEVY PROCESSES

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10:20 a.m. - 11:10 am
Refreshments 10:00 am
C405 Wells Hall

Abstract:

For an N-parameter additive Levy process {X(t): t≥0}, we generalize the packing dimension profile defined by Khoshnevisan, Schilling, and Xiao to high dimensions and use it to compute the packing dimension of images of the process X. In particular, we find that for any bounded Borel set F in RN, with probability one, the packing dimension of the random set X(F) equals the packing dimension profile of F. Our results also yield a probabilistic interpretation of many of the packing dimension profiles defined by Falconer and Howroyd in the study of orthogonal projections.

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