

# Quantitative aspects of Bourgain's discretized sum-product theorem

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Bourgain's discretized sum-product theorem has applications and connections to several problems in dynamics and fractal geometry, including random walks on Lie groups, stationary measures under toral automorphisms, distance sets, radial projections, just to name a few.

In this talk, I will discuss work in progress with Hochman and Lindenstrauss, and separately with Eberhard about various quantitative aspects of Bourgain's theorem.