

## ON THE EXACT DIMENSION OF MANDELBROT MEASURE

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*Abstract:* We develop, in the context of the boundary of a supercritical Galton–Watson tree, a uniform version of the argument used by Kahane (1987) on homogeneous trees to estimate almost surely and simultaneously the Hausdorff and packing dimensions of the Mandelbrot measure over a suitable set  $\mathcal{J}$ . As an application, we compute, almost surely and simultaneously, the Hausdorff and packing dimensions of the level sets  $E(\alpha)$  of infinite branches of the boundary of the tree along which the averages of the branching random walk have a given limit point.

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