

Exponents for High Points of Simple Random Walks in Two Dimensions

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We consider the favorite points of random walk, i.e. points where the local time is a fraction of the maximum. These are conjectured to coincide with the exponents for the numbers of pairs of late points and the one for high points of the Gaussian free field for which their exact values are known. We estimate the exponents for the numbers of a multipoint set of late points, favorite points and high points in average and in probability and verified that the conjecture is correct. In addition, we extend this result to the general domain which a simple random walk frequently visits.