

# Exponents for the number of high points of simple random walks in two dimensions

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## **Abstract**

We consider the problem, as suggested by Dembo (2003, 2006), of late points of a simple random walk in two dimensions. It has been shown that the exponents for the numbers of pairs of late points coincide with those of nearly favorite points and high points in the Gaussian free field, whose 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. In addition, we extend this result to the general domain which a simple random walk frequently visits.