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Title タイトル：
Boundary behaviour of RW's on planar graphs and convergence of LERW to chordal SLE(2)

Abstract：
We consider a random walk on a planar graph and give certain estimates concerning the harmonic measures for the walk in a grid domain, which estimates are useful for showing the convergence of a loop-erased random walk (LERW) to an stochastic Loewner evolution (SLE).
The walk is assumed to satisfy the invariance principle.
Our main concern is chordal case, where a random walk is started at a boundary vertex of a simply connected grid domain and conditioned to exit it through another boundary vertex specified in advance. The primary result is an estimate, which states that the excursion of the conditioned walk leaves an intrinsic neighborhood of its initial point not ¥lq along' the boundary but through an ¥lq intrinsic interior' of the domain with high probability. Based on this result one can show the convergence of a LERW to the chordal SLE in every simply connected domain, a result that has recently been proved by H. Suzuki under a certain smoothness assumption of the domain.