

CONVERGENCE OF LOOP ERASED RANDOM WALKS ON A PLANAR GRAPH TO A CHORDAL SLE(2) CURVE

H. SUZUKI (CHUO UNIVERSITY)

In this talk we consider the natural random walk on a planar graph and scale it by a small positive number δ . Given a simply connected domain D and its two boundary points a and b , we start the scaled walk at a vertex of the graph nearby a and condition it on its exiting D through a vertex nearby b , and prove that the loop erasure of the conditioned walk converges, as $\delta \downarrow 0$, to the chordal SLE(2) curve that connects a and b in D , provided that an invariance principle is valid for both the random walk and the dual walk of it.