

1120-60-33

Gregory F Lawler* (lawler@math.uchicago.edu), Department of Mathematics, University of Chicago, 5734 University Ave., Chicago, IL 60637-1546. *Convergence of loop-erased random walk to the Schramm-Loewner evolution in the natural parametrization.*

I will discuss recent work with Fredrik Viklund showing that the loop-erased random walk (LERW) on a fine lattice in bounded domain parametrized by number of steps, appropriately normalized, converges to the Schramm-Loewner evolution of parameter 2 (SLE_2) in the natural parametrization. The new part is to show that the number of steps in the walk converges to the 5/4-dimensional Minkowski content of the SLE_2 path. The proof uses the fact that the Minkowski content for SLE_2 exists and is nontrivial (work with M. Rezaei) and precise asymptotics for the LERW Green's function (work with Viklund and C. Benes). (Received January 27, 2016)