Random spanning trees on Sierpiński gasket graphs

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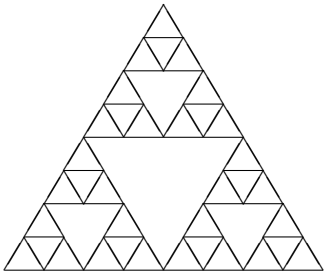
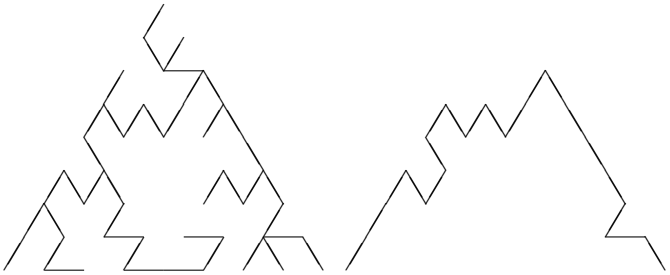
We study spanning trees on Sierpiński gasket graphs (i.e. finite approximations to the Sierpiński gasket). Let G_n be the nth Sierpiński gasket graph and let $\mathcal{T}_n$ be the set of the spanning trees of G_n. A spanning tree $\omega \in \mathcal{T}_n$ induces a self-avoiding walk from one corner of G_n to another (See the figure below).

There are two important probabilistic models of random spanning trees: (i) *uniform spanning tree* (UST) and (ii) *minimal spanning tree* (MST). For these models we show some geometric properties of spanning trees and induced self-avoiding walks.

[1] Shinoda,M., Teufl,E. and Wagner,S. Uniform spanning trees on Sierpinski graphs, arXiv:1305.5114.



G_3



a spanning tree of G_3 and induced self-avoiding walk