## Seminar/Talk

# The uniform spanning tree in 4 dimensions

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A uniform spanning tree of Z^4 can be thought of as the “uniform measure” on trees of Z^4. The past of 0 in the uniform spanning tree is the finite component that is disconnected from infinity when 0 is deleted from the tree. We establish the logarithmic corrections to the probabilities that the past contains a path of length n, that it has volume at least n and that it reaches the boundary of the box of side length n around 0. Dimension 4 is the upper critical dimension for this model in the sense that in higher dimensions it exhibits "mean-field" critical behaviour. An important part of our proof is the study of the Newtonian capacity of a loop erased random walk in 4 dimensions. This is joint work with Tom Hutchcroft.

**Tuesday, March 23, 2021 04:30pm - 05:15pm**
Online via Zoom

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