How does the critical point of SAW change on random conductance?

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Abstract

One of the original interest of self-avoiding walk (SAW) is how many possible paths we have. The number of n-step SAWs c_n and its asymptotic behavior give the answer. To understand the behavior of c_n we have considered the susceptibility χ, which is a generating function of c_n. χ has the radius of convergence which gives the critical point called connective constant. We can regard this general SAW is on "homogeneous" conductance. In this talk we will consider SAW on random conductance, and focus on how the critical point changes. This is a joint wark with Akira Sakai.