1067-60-136 **Jonathon Peterson*** (peterson@math.cornell.edu), Cornell University, Mathematics Department, Malott Hall, Ithaca, NY 14853, and **Nina Gantert**, Institute of Mathematical Statistics, Einsteinstrasse 62, 48149 Munster, Germany. *Bridges of random walks in a random environment.*

A bridge of a random walk is a path of length $2n$ that begins and ends at the origin. It is well known that the bridge of a simple random walk, when scaled by $\sqrt{n}$, converges in distribution to a Brownian bridge. In particular, this implies that the maximal displacement of the bridge is of the order $\sqrt{n}$.

We are interested in studying the distribution of bridges for transient one-dimensional random walks in a random environment. It turns out that in this case the maximal displacement of bridges is of the order $n^{\kappa/(\kappa+1)}$, where $\kappa > 0$ depends on the distribution on environments. The distribution on environments can be chosen to obtain any value $\kappa > 0$. In this talk I will explain how this result is obtained by using what is called the "potential" of the environment to study the trapping effects of the environment.

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