

Disconnection of discrete cylinders and random interlacements

ALAIN-SOL SZNITMAN, *ETH Zurich*,
e-mail: sznitman@math.ethz.ch

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The disconnection by random walk of a discrete cylinder with a large finite connected base, i.e. the so-called problem of the "termite in a wooden beam", has been a recent object of interest. In particular it has to do with the way paths of random walks can create interfaces. In this talk we describe results concerning the disconnection of a cylinder based on a large discrete torus. We explain how this problem is related to the model of random interlacements and specifically to some of its percolative properties.