1019-60-75   **Noam Berger*** (`berger@math.ucla.edu`), University of California, Department of Mathematics, LA, CA 90095, and **Yuval Peres**, Microsoft corporation, Redmond, WA 98052. *Detecting the path of a random walker in a random scenery.*

Flip a fair coin on every vertex of a transient graph. We call this i.i.d. measure P. Then a random walker retosses the coin on each vertex along its path, this time with a bias. We call this new measure Q. Seeing a configuration, can we tell whether it is a sample of P or of Q? i.e. are P and Q absolutely continuous with respect to each other or are they singular? In the talk we answer this question for a wide class of graphs. (Received August 06, 2006)