1035-60-1281 **Elizabeth R Moseman*** (lizz.moseman@usma.edu) and **Peter Winkler**. *On a Form of Coordinate Percolation.*

Let a_i, b_i, $i = 0, 1, 2, \ldots$ be drawn uniformly and independently from the unit interval, and let t be a fixed real number. Let a site $(i, j) \in \mathbb{N}^2$ be *open* if $a_i + b_j \leq t$, and *closed* otherwise. We obtain a simple, exact expression for the probability $\Theta(t)$ that there is an infinite path (oriented or not) of open sites, containing the origin. $\Theta(t)$ is analytic except at the critical point ($t = 1$), near which it has critical exponent $(3 - \sqrt{5})/2$. (Received September 19, 2007)