

Akinsete, A. A and Adeleke, E. O. (2000). Random walk in a two dimensional space. *Proceedings of the Section on Statistics in Sports: American Statistical Association*. **2000**, 103-107.

Abstract:

We discuss a random walk exhibited by a particle in a restricted two dimensional Euclidean space. The nature of the walk is one in which a particle moves in any four equally probable directions with given probabilities. We obtain the probability generating function of the system state and the transitional probability of the particle's movement after a given number of jumps. An application is found in a stochastic game involving the movement of "seed" in the draught game between two players. In this case, the walk becomes a classical ruin problem.