

1067-05-1751

Palmer C Mebane*, 2821 W Brigstock Rd, Midlothian, VA 23113. *Exhaustive Random Permutations*. Preliminary report.

Consider a game in which n people randomly shuffle their wallets. Anyone who gets their own wallet leaves, and the remaining people shuffle again, continuing until everyone leaves. The random variable X_n is defined as the amount of time it takes for the game to end with n people. Using a recurrence relation we will derive some basic results about the moments of X_n . We will then show some investigations toward finding the limiting distribution of this random variable as $n \rightarrow \infty$. (Received September 21, 2010)