

1077-05-2608

Kathryn M Hawley* (khawley@hmc.edu) and **Taylor Allison** (tfallis2@ncsu.edu). *Covering length- n permutations with $n+1$.*

We use various probabilistic methods investigate the question of how many $n + 1$ -permutations are necessary to cover all permutations of length n . Our results include bounds in the proportion of $n + 1$ -permutations necessary for the existence of a cover and the threshold at which a cover is almost guaranteed to exist. (Received September 22, 2011)