

1151-20-78

Eilidh McKemmie*, eilidh.mckemmie@gmail.com. *Invariable generation of large rank finite classical groups.*

We say a group is invariably generated by a subset if it forms a generating set even if an adversary is allowed to replace any elements with their conjugates. Eberhard, Ford and Green built upon the work of many others and showed that, as $n \rightarrow \infty$, the probability that S_n is invariably generated by a random set of elements is positive if there are four random elements, but goes to zero if we pick three random elements. This result gives rise to a nice Monte Carlo algorithm for computing Galois groups of polynomials. We will extend this result for S_n to the finite classical groups using the correspondence between classes of maximal tori of classical groups and conjugacy classes of their Weyl groups. (Received August 08, 2019)