

Growth and subgroups of $Out(F_n)$.

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Let n be an integer and let $Out(F_n)$ be the outer automorphism group of a non-abelian free group of rank n . Let $[g]$ be a conjugacy class of F_n and $F \in Out(F_n)$. The class $[g]$ has exponential growth under iteration of F if the word length (for a given basis of F_n) of $F^m([g])$ grows exponentially fast with m . We will present a structure result for subgroups of $Out(F_n)$ which shows that, given a subgroup H of $Out(F_n)$, there exist generic elements of H which capture the exponential growth of every element of H .