

September 23, 2019, *Steinberg's classification of automorphisms of finite order.*

A basic theorem from Steinberg's *Endomorphisms of linear algebraic groups* (AMS Memoirs **80**, 1968) is that any finite order automorphism θ of a complex reductive algebraic group G must preserve a Borel subgroup and maximal torus $B \supset T$. We'll see how this leads to the result in the title, and the connection with automorphisms of based root data.