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Laura S. Walton* (laura@math.brown.edu), 151 Thayer Street, Brown University, Box 1917, Providence, RI 02912. *Idempotent relations for periodic point counts over finite fields.*

Let V be a quasiprojective variety defined over \mathbb{F}_q , and let $\phi : V \rightarrow V$ be an endomorphism of V that is also defined over \mathbb{F}_q . Let G be a finite subgroup of $\text{Aut}_{\mathbb{F}_q}(V)$ with the property that ϕ commutes with every element of G . Then, idempotent relations in the group ring $\mathbb{Q}[G]$ give relations between the periodic point counts for the maps induced by ϕ on the quotients of V by the various subgroups of G . This is a generalization of work of Ernst Kani and Michael Rosen. (Received September 08, 2017)