Finding the number of integer points of an integral polytope $P$ is a classical problem in polyhedral geometry. One possible approach is through a McMullen formula, a formula of the form:

$$|P \cap \mathbb{Z}^n| = \sum_{F \subset P} \alpha(F, P) n\text{vol}(F),$$

where the sum is over all faces, and $\alpha(F, P)$ are rational numbers depending just on the feasible cone of $F$ in $P$. The function $\alpha(F, P)$ is not uniquely determined and different constructions have been discovered. We explore a particular one, given by Berline and Vergne, on generalized permutohedra, deformations of regular permutohedra. We conjecture that the resulting $\alpha$ are positive, this relates to the positivity of the coefficients of their Ehrhart polynomials. We established close connections between this $\alpha$ values, mixed Ehrhart theory for hypersimplices, and the Todd class of the permutohedral toric variety. (Received September 17, 2015)