Suppose $G$ is a finite group of automorphisms of a modular curve $X$. The modular forms of a given even weight associated to $X$ form a complex representation of $G$. This talk concerns whether the character of this representation takes rational values. More generally, we consider $G$-covers $\pi : X \to Y = X/G$ of smooth projective curves over a field of characteristic 0. We determine geometric conditions on $\pi$ which are equivalent to the statement that for every coherent sheaf $\mathcal{F}$ on $Y$, the trace function of the $G$-equivariant Euler characteristic of $\pi^* \mathcal{F}$ takes only rational values. (Received July 19, 2007)