

Abelian varieties with group action

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Let G be a finite group acting on a smooth projective curve X . This induces an action of G on the Jacobian JX of X and thus a decomposition of JX up to isogeny. The most prominent example of such a situation is the group G of two elements. Let $X \rightarrow_{\iota} Y$ denote the corresponding quotient map. Then JX is isogenous to the product of JY with the Prym variety of X/Y . In the talk some general results on group actions on abelian varieties are given and applied to deduce a decomposition of the jacobian JX for arbitrary group actions. Several examples are given. (joint work with Sevin Recillas).