Numerical characterization of complex torus quotients

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An important consequence of Yau's resolution of the Calabi conjecture (1978) is that a compact Kähler manifold X is an étale quotient of a torus by a finite group $X = T/G$ if and only if $c_1(X) = 0$ and there exists a Kähler class α such that $c_2(X) \cdot \alpha^{n-2} = 0$. Over the last decade, the more general problem of characterizing (singular) quotients of a torus by a finite group acting with fixed points has drawn a lot of attention, but it is still not yet solved in full generality. We will survey the existing results and (some) techniques involved in the proofs.