

# Equivariant cohomology, Kaehler-Einstein metrics and stability

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## **Abstract**

I will talk on some aspects of a character of the Lie algebra of holomorphic vector fields which obstructs the existence of Kaehler-Einstein metrics. There are two different expressions for this character. One is extended in order to study extremal Kaehler metrics, and the other is expressed as an equivariant cohomology which is related to moment maps. Both are related in different ways to stability of algebraic varieties in the sense of GIT.