The beta-constant appeared in algebraic and complex geometry

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The notion of the K-stability of Fano varieties is an algebro-geometric stability condition originally motivated by studies of Kahler metrics. It was defined in terms of the sign of the generalised Futaki invariant on all (or some) test configurations. Recently, there has been important progress in reinterpreting K-stability in terms of invariants associated to valuations rather than test configurations. In particular, K. Fujita and C. Li independently obtained a necessary and sufficient condition for K-stability in terms of the beta-constant. On the other hand, in the recent paper of Ru-Vojta, we used the beta-constant to extend Cartan's Second Main Theorem in Nevanlinna theory (as well as Schmidt's subspace theorem in Diophantine approximation) to holomorphic maps from the complex plane to algebraic varieties intersecting (general) divisors. In this talk, I will try to explore the possible similarities and relations between the above two mentioned areas.