

İSTANBUL ANALYSIS SEMINARS

DEGENERATE COMPLEX MONGE-AMPÈRE EQUATIONS ON COMPACT KÄHLER MANIFOLDS

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Abstract: Degenerate complex Monge-Ampère equations on compact Kähler manifolds have been recently intensively studied using tools from Pluripotential theory. It turns out that this provides a different approach to the weak version of the famous Calabi conjecture and allows to extend Calabi-Yau and Aubin-Yau theorems on the existence of Kähler-Einstein metrics to the case of projective varieties with mild singularities. I will survey some recent results obtained with P. Eyssidieux and V. Guedj by emphasizing the rôle of Pluripotential theory in this approach.

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