

**MONGE-AMPÈRE EQUATIONS, $(n - 1, n - 1)$ FORMS, AND
HERMITIAN METRICS**

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A smooth function on \mathbb{C}^n is called $(n - 1)$ -plurisubharmonic in the sense of Harvey-Lawson if the sum of every $n - 1$ eigenvalues of its complex Hessian is nonnegative. We show existence of smooth solutions to the associated Monge-Ampère equation on compact Kähler manifolds. As a consequence we obtain Calabi-Yau theorems for balanced and Gauduchon metrics on compact Kähler manifolds. I will also describe generalizations to Hermitian manifolds and some open problems.

This is a joint work with Valentino Tosatti.