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The complex Monge-Ampere equation on compact Kaehler manifolds

We consider the complex Monge-Ampere equation on a compact Kaehler manifold (M, g) when the right hand side F has rather weak regularity. In particular we prove that estimate of $\triangle \phi$ and the gradient estimate hold when F is in W^{1,p_0} for any $p_0 > 2n$. As an application, we show that there exists a classical solution in W^{3,p_0} for the complex Monge-Ampere equation when F is in W^{1,p_0}.