## A characterization of the degenerate complex Hessian equations for functions with bounded (p, m)-energy

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**Abstract.** By proving an estimate of the sublevel sets for  $(\omega, m)$ -subharmonic functions, we obtain a Sobolev-type inequality that is then used to characterize the degenerate complex Hessian equations for functions with bounded (p, m)-energy defined on compact Kähler manifolds. This paper is a continuation of the work of Lu and Nguyen.

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