

1084-35-318

Bo Guan* (guan@math.osu.edu), Department of Mathematics, Ohio State University, Columbus, OH 43210. *Second order estimates for fully nonlinear elliptic equations.*

We present some new methods to derive a priori estimates for second order derivatives of solutions to fully nonlinear elliptic equations, using subsolutions and the strict concavity of the equation. We'll consider both boundary and global estimates. The methods apply to very general equations and therefore give new and improve previously known results as well. In this talk we shall focus on elliptic equations on Riemannian manifolds. (Received September 04, 2012)