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Hessian estimates for special Lagrangian equations with critical and supercritical phases

Abstract. We talk about a priori Hessian estimates for special Lagrangian equation with critical and supercritical phases in general higher dimensions. The "gradient" graphs of solutions are minimal Lagrangian submanifolds. Our unified approach leads to sharper estimates even for the previously known three dimensional or convex solution cases. Recent counterexamples for subcritical phase equations will also be mentioned.

This is joint work with Dake Wang.