

## THE 3RD SYMPOSIUM ON ANALYSIS AND PDES

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### HESSIAN ESTIMATES FOR SPECIAL LAGRANGIAN EQUATIONS

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We survey some recent results on Hessian estimates for special Lagrangian equations, including the  $\sigma_2$  equation in dimension three. The gradient graph of the solutions are minimal Lagrangian surfaces. An Hessian estimate for the  $\sigma_2$  (Monge-Ampere) equation in dimension two was obtained by Heinz in the 1950's, and irregular solutions to the  $\sigma_3$  (Monge-Ampere) equation in dimension three were constructed by Pogorelov in the 1970's. This is joint work with Micah Warren.