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APRIORI ESTIMATES FOR COMPLEX MONGE-AMPERE EQUATIONS AND FULLY NONLINEAR EQUATIONS ON KÄHLER MANIFOLDS

The complex Monge-Ampere equation has a fundamental role in Kähler geometry, beginning with Yau's solution of the Calabi conjecture. In this talk, we will introduce the complex Monge-Ampere equation and discuss a new method for proving sharp a priori estimates. This new method has the advantage it avoids the method of pluripotential theory which was previously necessary, and applies very generally to a large class of equations. This talk is based on joint work with B. Guo and D.H. Phong.
