On the Neumann problem for Monge-Ampère type equations
Feida Jiang, Neil S Trudinger, and Ni Xiang

Abstract. In this paper, we study the global regularity for regular Monge-Ampère type equations associated with semilinear Neumann boundary conditions. By establishing a priori estimates for second order derivatives, the classical solvability of the Neumann boundary value problem is proved under natural conditions. The techniques build upon the delicate and intricate treatment of the standard Monge-Ampère case by Lions, Trudinger and Urbas in 1986 and the recent barrier constructions and second derivative bounds by Jiang, Trudinger and Yang for the Dirichlet problem. We also consider more general oblique boundary value problems in the strictly regular case.