ON PROJECTIVE MORPHISMS OF VARIETIES
WITH NEF ANTICANONICAL DIVISOR

Lunhao Ao

Dr. Qi Zhang, Dissertation Supervisor

ABSTRACT

We shall study and discuss some important properties of the projective varieties with nef anticanonical bundles and nef tangent bundles. And we shall review some background and history about the subject. Then we shall use weak positivity theorem to give a new proof of a theorem of Olivier Debarre without using mod $p$ reduction, which gives an affirmative answer to a question raised by Fujino and Gongyo.