

1118-53-67

Song Sun*, Department of mathematics, Stony Brook University, Stony Brook, NY 11794, and
Xiuxiong Chen and **Bing Wang**. *Kahler-Ricci flow, Kahler-Einstein metric, and K-stability*.

We study the asymptotic behavior of certain canonical geometric flows on projective manifolds, and relate it to algebraic stability and “optimal degenerations”. For Kahler-Ricci flow on Fano manifolds this leads to a new proof of the Kahler-Einstein result. This also has applications to Calabi flow, and possibly in the future to other geometric problems. Some interesting questions will be discussed. (Received January 20, 2016)