

1078-51-177

Gabor Szekelyhidi* (gszekely@nd.edu), University of Notre Dame, 255 Hurley, Notre Dame, IN 46556. *Blowing up extremal Kahler manifolds.*

Starting with a manifold which admits an extremal Kahler metric, we construct extremal metrics on the blowup, sharpening results of Arezzo-Pacard-Singer. When the base manifold admits a Kahler-Einstein metric, then this gives a necessary and sufficient condition for the blowup in a single point to admit a constant scalar curvature Kahler metric, as long as the exceptional divisor is sufficiently small. (Received December 06, 2011)