1135-53-1158   **Yongjia Zhang*** (`yoz020@ucsd.edu`), Department of Mathematics, University of California, San Diego, San Diego, CA 92093-0112. *On the equivalence between bounded entropy and noncollapsing for ancient solutions to the Ricci flow.*

In Perelman's celebrated paper *the entropy formula for the Ricci flow and its geometric applications* he asserted that for an ancient solution to the Ricci flow with nonnegative curvature operator, bounded entropy is equivalent to κ-noncollpasing on all scales. We prove this assertion with an additional assumption on one time slice of bounded geometry, that is, that the curvature is bounded from above and the volume of unit balls is bounded from below. (Received September 20, 2017)