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Brett Lawrence Kotschwar* (kotschwar@asu.edu), School of Math. and Stat. Sciences,
Arizona State University, P.O. Box 871804, Tempe, AZ 85287-1804. *Short-time persistence of
bounded curvature under the Ricci flow.*

We use a first-order energy quantity to prove a strengthened statement of uniqueness for the Ricci flow. One consequence of this statement is that if a complete solution on a noncompact manifold has uniformly bounded Ricci curvature, then its sectional curvature will remain bounded for a short time if it is bounded initially. In other words, the Weyl curvature tensor of a complete solution to the Ricci flow cannot become unbounded instantaneously if the Ricci curvature remains bounded. (Received September 14, 2015)