



Bounds on volume growth of geodesic balls under Ricci flow

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We prove a so called κ non-inflating property for Ricci flow, which provides an upper bound for volume ratio of geodesic balls over Euclidean ones, under an upper bound for scalar curvature. This result can be regarded as the opposite statement of Perelman's κ non-collapsing property for Ricci flow. These two results together imply volume doubling property for Ricci flow without assuming Ricci curvature lower bound.

Comments: One reference on related result [CW2] added. A typo at last line of p3 corrected. The last coefficient $p(t)$ in the line should be in front of Δu only

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