AN APPLICATION OF THE AFFINE SHORTENING FLOW

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Abstract. In this paper, using the affine curve shortening flow, we prove the following inequality: if C is a smooth closed and convex curve with affine perimeter $\mathscr{L}$ and enclosed area $\mathscr{A}$, then

$$\mu_{\max} \geqslant \frac{\mathscr{L}}{2\mathscr{A}},$$

where $\mu_{\max}$ is the maximum affine curvature of C.

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