

## THE $p$ -AFFINE SURFACE AREA

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**Abstract.** The main purpose of this article is to generalize Petty's affine projection inequality and monotonicity results related to affine surface area to  $p$ -affine surface area.

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*Key words and phrases:* curvature function,  $p$ -curvature function, affine surface area,  $p$ -affine surface area,  $p$ -mixed affine surface area.

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