
DEPING YE, Memorial University of Newfoundland

On the monotonicity of affine surface areas under the Steiner symmetrization

The affine surface area and its extensions are central notions in convex geometry. They have important applications in, for instance, approximation of convex bodies by polytopes, valuation theory, and information theory.

In this talk, I will discuss how the L_p and general affine surface areas change under the Steiner symmetrization. The monotonicity will lead to (stronger) affine isoperimetric inequalities.