1147-52-233 **Elisabeth M Werner*** (elisabeth.werner@case.edu), Department of Mathematics, Case Western Reserve University, Cleveland, OH 44106, **Julian Grote** (julian.grote@rub.de), Institute of Stochastics, Ulm, Germany, and **Christoph Thaele** (christoph.thaele@rub.de), Department of Mathematics, Bochum. *Surface area deviation between smooth convex bodies and polytopes.*

The deviation of a convex body and an arbitrarily positioned polytope with a given number of vertices is studied. We consider the case where the deviation is measured in terms of the surface areas of the involved sets, more precisely, by what is called the surface area deviation. The proof uses arguments and constructions from probability, convex and integral geometry. The bound is closely related to L_p-affine surface areas.

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