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ERRATUM

Volume **90**, Number 1 (1997), in Article No. AT973065, "Umbrellas and Polytopal Approximation of the Euclidean Ball," by Y. Gordon, S. Reisner, and C. Schütt, pages 9–22.

The paragraph beginning on page 10, line 16 from the bottom and ending at line 3 of page 11, should read: Gruber [8] obtained an asymptotic formula. If a convex body K in $\mathbb{R}^d$ has a C^2-boundary with everywhere positive curvature, then

$$\inf\{d_S(K, P_n) \mid P_n \subset K \text{ and } P_n \text{ has at most } n \text{ vertices}\}$$

is asymptotically the same as

$$\frac{1}{2}\,\mathrm{del}_{d-1}\left(\int_{\partial K} \kappa(x)^{1/(d+1)}\, d\mu(x)\right)^{(d+1)/(d-1)} \left(\frac{1}{n}\right)^{2/(d-1)},$$

where del_{d-1} is a constant that is connected with triangulations. In [5] and [6], it was shown constructively that for all dimensions d, all convex bodies K, and all $n \geqslant 2$ there is a polytope P_n with n vertices that is contained in K such that

$$\mathrm{vol}_d(K) - \mathrm{vol}_d(P_n) \leqslant c_1\, d\, \mathrm{vol}_d(K)\, n^{-2/(d-1)}$$

where c_1 is a constant. This estimate can also be derived from [1] or [2] and [3]. So the question was whether the factor d was necessary, or, in other words, what is the order of magnitude of the constant del_d. The result in this paper shows that there are positive absolute constants c_1 and c_2 with

$$c_1 d \leqslant \mathrm{del}_d \leqslant c_2 d.$$

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