LOWER DIMENSIONAL ELLIPSOIDS OF MAXIMAL VOLUME IN CONVEX BODIES

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Abstract. In this paper, we show that the volume of a $k$-dimensional ellipsoid in the convex body formed by centered isotropic measures on the unit sphere is no larger than that of a $k$-dimensional Ball of radius $\sqrt{n(n+1)/k(k+1)}$. It generalizes the John theorem to the lower dimensional cases.


Keywords and phrases: The John theorem, ellipsoid, isotropic measure.

REFERENCES