

# ON THE PROJECTIONS OF POLYTOPES AND THEIR ISOTROPY CONSTANT

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ABSTRACT. We show how the projection of an  $n$ -dimensional polytope  $K$  on a  $k$ -dimensional subspace can be decomposed as the disjoint (up to measure 0 sets) union of the projection of some  $k$ -dimensional faces of  $K$ . We use this to prove that the isotropy constant of any  $n$ -dimensional polytope with  $N$  vertices is bounded by  $\sqrt{\frac{N}{n}}$ .