1125-52-829 **Matthew Alexander*** (malexan5@kent.edu), **Martin Henk** and **Artem Zvavitch**. *A discrete version of Koldobsky's slicing inequality.*

In this talk we will discuss an answer to a question of Alexander Koldobsky and present a discrete version of his slicing inequality. We let $\#K$ be a number of integer lattice points contained in a set K. We show that for each $d \in \mathbb{N}$ there exists a constant $C(d)$, depending on d only, such that for any origin-symmetric convex body $K \subset \mathbb{R}^d$ containing d linearly independent lattice points

$$\#K \leq C(d) \max_{\xi \in S^{d-1}} (\#(K \cap \xi^{\perp}))\, \mathrm{vol}_d(K)^{\frac{1}{d}},$$

where $\xi^{\perp}$ is the hyperplane orthogonal to a unit vector ξ . We show that $C(d)$ can be chosen asymptotically of order $O(1)^d$ for hyperplane slices. Additionally, we will discuss some special cases and generalizations for this inequality. (Received September 12, 2016)