962-52-1247   **Imre Bárány*** (`barany@math.ucl.ac.uk`), Maths Department, University College London, Gower Street, WC1E 6BT London, England, and **Jiri Matousek**, Dept. Applied Mathematics, Charles University, Malostranske 25, 11800 Praha, Czech Rep. *Integer points in rotated convex bodies.*

Let K be a planar convex body symmetric about the origin. Define $P(K)$ as the probability that τK contains no point from the integer lattice (except the origin), where τ is a random rotation around the origin. Finally, let $P(v)$ be the infimum of $P(K)$ over all 0-symmetric bodies with area v. By Minkowski's theorem, $P(v) = 1$ when $v > 4$, and $P(v) = 0$ for $v < \pi$. We describe the behaviour of $P(v)$ in the intervals $[\pi, \pi + c]$ and $[4 - c, 4]$ for a small positive constant c. (Received October 03, 2000)