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Paul R. Goodey, Vladyslav Yaskin and Maryna Yaskina* (myaskina@math.ou.edu), Dept. of Mathematics, University of Oklahoma, Norman, OK 73019. *Shadow Boundaries and the Fourier Transform.*

We investigate the Fourier transform of homogeneous functions on \mathbb{R}^n which are not necessarily even. These techniques are applied to the study of nonsymmetric convex bodies, in particular to the question of reconstructing convex bodies from the information about their shadow boundaries. (Received February 22, 2007)