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Galyna V Livshyts* (glivshyt@kent.edu), The Department of Mathematical Sciences, Kent State University, Kent, OH 44242. *Maximal surface area of a convex set in \mathbb{R}^n with respect to exponential rotation invariant measures.*

Let p be a positive number. Consider probability measure γ_p with density $\varphi_p(y) = c_{n,p} e^{-\frac{|y|^p}{p}}$. We show that the maximal surface area of a convex body in \mathbb{R}^n with respect to γ_p is asymptotically equal to $C_p n^{\frac{3}{4} - \frac{1}{p}}$, where constant C_p depends on p only. This is a generalization of Ball's and Nazarov's bounds, which were given for the case of the standard Gaussian measure γ_2 . (Received September 04, 2012)