1026-52-16   **Horst Martini** (`horst.martini@mathematik.tu-chemnitz.de`), Faculty of Mathematics, University of Technology Chemnitz, 09107 Chemnitz, Germany, and **Zokhrab Mustafaev*** (`mustafaev@uhcl.edu`), Department of Mathematics, University of Houston-Clear Lake, Houston, TX 77058. *Some applications of cross-section measures in Minkowski spaces.*

We establish the sharp lower bound for the inner radius of the unit ball for the Holmes-Thompson measure using cross-section measures in Minkowski spaces. We also establish the sharp upper bound for the outer radius of the unit ball for the Busemann measure. Furthermore, we give a characterization of ellipsoinds in R^d via codimensional cross-section measures yielding the confirmation of a conjecure of Rogers and Shephard. (Received December 22, 2006)