

1059-52-35

Maria Angeles Alfonseca-Cubero* (maria.alfonseca@ndsu.edu), Department of Mathematics, NDSU Dept # 2750, PO BOX 6050, Fargo, ND 58108. *Results on regularity of intersection bodies of star bodies.*

The intersection body of a star body B in \mathbb{R}^n is defined as the body IB whose radial function is (up to constant) the Radon transform of the $(n - 1)$ -th power of the radial function of B . We will show necessary regularity and convexity conditions for a body of revolution to be an intersection body of a star body. (Received February 05, 2010)