1126-53-214 **Mohammad Ghomi*** (ghomi@math.gatech.edu). *The length, width, and inradius of space curves.*

The width w of a curve c in Euclidean space is the infimum of the distances between all pairs of parallel hyperplanes which bound c, while its inradius r is the supremum of the radii of all spheres which are contained in the convex hull of c and are disjoint from c. We use a mixture of topological and integral geometric techniques, including the Borsuk Ulam theorem and Crofton's formulas, to obtain lower bounds on the length of c subject to constraints on r and w. Our estimates confirm some conjectures of Zalgaller up to 99% of their stated value, while we also disprove one of them. (Received January 13, 2017)