1163-57-180Elizabeth Denne*, Mathematics Department, Washington & Lee University, Lexington, VA24450. Crossing Number and Ribbonlength of Folded Ribbon Knots.

We study Kauffman's model of a folded ribbon knot: a knot made from a thin strip of paper folded flat in the plane. The folded ribbonlength is the length to width ratio of such a ribbon. We give upper bounds on ribbonlength and relate these to crossing number for various families of knots. We also give a construction showing ribbonlength is sublinear in crossing number for torus knot families. This is joint work with undergraduate students. (Received August 25, 2020)