1145-57-1214 Elizabeth Denne^{*}, Washington & Lee University, Robinson Hall, Lexington, VA 24450. Folded ribbon knots in the plane. Preliminary report.

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, and it turns out the way a ribbon is folded influences the ribbonlength. We give upper bounds on ribbonlength for several different families of knots. We also relate the ribbonlength of a knot to the crossing number of the knot, again giving bounds for several different families of knots. This is joint work with undergraduate students. (Received September 20, 2018)