1116-57-873 **Elizabeth Denne***, Washington & Lee University, Lexington, VA 24450. *Folded knots in the plane.* Preliminary report.

Knots and links are modeled as folded ribbons lying in the plane, origami style. The ribbonlength of a knot is the the length of a knot divided by the width of the ribbon around it. The ribbonlength problem seeks to minimize the ribbonlength for a knot or link type. In this talk we'll discuss the construction of folded ribbon knots, and give examples of folded ribbon knots and their ribbonlength. It turns out there are several good candidates for the notion of equivalent folded ribbon knots, which complicates the ribbonlength problem. I'm hoping the origami community might be able to give some insight into this problem, and perhaps provide computational ideas for minimizing ribbonlength. This is joint work with undergraduate students from Smith College and Washington & Lee University. (Received September 14, 2015)