1126-53-281 **Jason Cantarella***, University of Georgia Math Department, Boyd GSRC, 102 D.W. Brooks Drive, Athens, GA 30602, and **Eric Rawdon** and **Clayton Shonkwiler**. *A probabilistic approach to open knotting.* Preliminary report.

This talk presents some (very) preliminary results from a program which attempts to define knotting for arcs in probabilistic terms: given a k-edge arc A, we can define a probability distribution $P(A, n)$ on n-gons by conditioning the standard probability distribution on n-gons on the hypothesis that the first k edges form arc A.

The *n-edge knot probability spectrum* of the arc A is then the probability of knots in the n-gon distribution $P(A, n)$. In this talk, we'll present algorithms for sampling from $P(A, n)$ in an unbiased way, and hopefully discuss some experimental results comparing the distribution of knots we obtain to the distribution generated by other random closure methods.

The dependence of the results on n obviously makes the resulting framework less pretty, so we may include some speculation on how to remove it. (Received January 16, 2017)