1145-57-1910   **Cynthia L. Curtis** and **Kate O'Connor*** (`oconnk17@tcnj.edu`). *Weights of Essential State Surfaces: A Combinatorial Approach.* Preliminary report.

In this talk, we investigate the essential surfaces in the complements of two-bridge knots. The slopes of such surfaces contribute to computations of Culler-Shalen semi-norms, $SL(2, \mathbb{C})$ Casson invariants, and polytopes for A-polynomials, and some slopes are weighted more heavily than others in these computations. Ohtsuki has computed the weights of these surfaces for two-bridge knots. We present a more geometric method for computing these weights which we hope will lend itself to generalization to the computation of weights of essential state surfaces obtained by smoothings of diagrams for more general knots. (Received September 24, 2018)