1171-55-146 Brandon Bavier* (bhb015@shsu.edu). Weakly Generalized Alternating Links and the Jones Polynomial.

A major goal of knot theory is to relate various invariants of links to their diagrams. When looking at alternating links in S^3 with diagrams on S^2 , this can be relatively straightforward. When we generalize our links to exist in other manifolds or sit on other surfaces, though, we can get similar results for a wider class of links. In this talk, we will show that certain coefficients of a Jones-like polynomial can be recovered from diagrammatic properties of the link. As a consequence, this also allows us to relate the volume of these links to both this Jones-like polynomial and a diagram of the link. (Received August 09, 2021)