1116-VU-1848 **A. Overbay*** (aoverbay@austincollege.edu) and **K. Van Dinh**. *New Knot Invariants in an Expansion of the Colored Jones Polynomial.*

Both the Alexander polynomial and the Jones polynomial are two well-known knot invariants. The Melvin-Morton conjecture, proved by Bar-Natan and Garoufalidis, provides a relationship between these two invariants. It states that the bottom 'line' in a certain expansion of the colored Jones polynomial generates the inverse of the Alexander polynomial. Rozansky later proved that the upper lines in this expansion generate rational functions with powers of the Alexander polynomial in the denominator with polynomial invariants of the knot in the numerator. In this talk, we will describe our methods used to calculate the third term in the expansion and present new polynomial invariants that occur in this term. We will also discuss how these results support a conjecture concerning amphichiral knots. (Received September 21, 2015)