1094-54-383 **Lena C. Folwaczny*** (lena.folwaczny@gmail.com) and **Louis H. Kauffman**. *Applications of the Wriggle Polynomial and Affine Index Polynomial.*

The Wriggle Polynomial is a virtual knot invariant constructed by assigning a weight at each crossing, the weight being a difference of two virtual linking numbers. The Wriggle Polynomial is equivalent to the Affine Index Polynomial, which is constructed by an integer labeling of arcs in the knot diagram (in the structure of a flat affine biquandle), and then using this integer labeling to assign a weight at each crossing. In this talk we introduce the two polynomials and discuss their ability to distinguish certain types of mutation, their Vassiliev Invariants, and other applications. (Received August 27, 2013)