Caitlin Leverson* (leverson@math.gatech.edu) and Dan Rutherford. Ruling Polynomials and the Colored HOMFLY-PT Polynomial.

Given a Legendrian knot $\Lambda$ in $\mathbb{R}^3$ with the standard contact structure, Rutherford showed that the ruling polynomial of $\Lambda$ appears as a specialization of the HOMFLY-PT polynomial of its topological knot type. We will extend the definition of the ruling polynomial to define the colored ruling polynomial of a Legendrian knot, analogously to how the definition of the colored HOMFLY-PT polynomial is an extension of the HOMFLY-PT polynomial, and show that the colored ruling polynomial of $\Lambda$ also appears as a specialization of the colored HOMFLY-PT polynomial of $\Lambda$’s topological knot type. (Joint work with Dan Rutherford.) (Received August 18, 2019)