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**Jozef H. Przytycki\*** (przytyck@gwu.edu), Department of Mathematics, George Washington University, Washington, DC 20052. *Polynomial time complexity from Jones polynomial to Khovanov homology.*

We discuss here my (old) work on computational complexity of quotients of the Jones, Homflypt, and 2-variable Kauffman polynomials, and refinement due to D.Vertigan: If we expand the Homflypt polynomial  $P_L(a, z) = \sum_m^M P_i(v)z^i$  then  $P_i(v)$  can be computed in polynomial time (dynamics programming is used here). We propose to use these results to Khovanov and Khovanov-Rozansky homology and we discuss parts of the homology computable in polynomial time. (Received September 09, 2013)