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Equivariant $sl(n)$ -link homology.

For every positive integer n , M. Khovanov and L. Rozansky constructed a bigraded link homology theory with Euler characteristic the quantum $sl(n)$ -link polynomial. Matrix factorizations played an integral part in their construction. I will discuss these theories and a generalization that is motivated by the "universal" rank two Frobenius extension studied by M. Khovanov for $sl(2)$ -homology. This equivariant $sl(n)$ -link homology should be a starting point of unraveling some inherent structural properties of the Khovanov-Rozasny link homology and related theories. (Received September 09, 2008)