Khovanov homology, Ozsvath-Szabo invariants, and contact structures

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Abstract

Khovanov homology is a combinatorially defined invariant of a link in S^3 . A recent theorem of Ozsvath and Szabo relates this invariant to topology of 3-manifolds. I will describe the correspondence between Khovanov homology and Ozsvath-Szabo invariants, and then discuss how this correspondence can be extended to include invariants of contact 3-manifolds and transverse knots in S^3 .