A relationship between reduced colored Khovanov homology and knot Floer homology

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This is joint work with Elisenda Grigsby.

For an (n,n)-tangle T in the ball B^3, we describe a spectral sequence whose E^2 term is a suitable variant of Khovanov's homology of T, and which converges to the sutured Floer homology of the branched double-cover of B^3, branched along T. As an application, we show that Khovanov's categorification of the reduced n-colored Jones polynomial detects the unknot for all $n > 1$.

1:00 p.m.
Math 520
Columbia University