

1054-18-90

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Mikhail Khovanov. *Categorification of Orthogonal Polynomials.*

We introduce a categorification of the ring of polynomials $Z[x]$, viewed as a Grothendieck ring of a suitable category of projective modules over geometrically defined ring. This construction is generalized to the categorification of some basic special functions, such as Chebyshev polynomials. (Received September 07, 2009)