

1053-57-242

Oleg Viro* (oleg.viro@gmail.com), Institute for Mathematical Sciences, Stony Brook University, Stony Brook, NY 11794-3660. *Boundary value Khovanov homology*. Preliminary report.

In the talk the Khovanov homology is generalized from links to tangles. Unlike the previous generalizations, which are due to Khovanov and Bar Natan, this one categorifies a well-known generalization of the Jones polynomial, the Reshetikhin-Turaev functor from the category of tangles to the category of $\mathbb{Z}[q, q^{-1}]$ -modules, in the same way as the Khovanov homology categorifies the Jones polynomial: we construct homology groups whose graded Euler characteristics are matrix elements of the map corresponding to the tangle. (Received September 06, 2009)