

**Meeting:** 1006, Lubbock, Texas, SS 8A, Special Session on Invariants of Links and 3-Manifolds

1006-57-117      **Abhijit Champanerkar\*** (achampanerkar@jaguar1.usouthal.edu), Department of Mathematics and Statistics, ILB 325, University of South Alabama, Mobile, AL 36688, **Ilya Kofman** (ikofman@math.columbia.edu), Department of Mathematics, Barnard College, Columbia University, New York, NY 10027, and **Oleg Viro** (oleg@math.uu.se), Department of Mathematics, Uppsala University, P.O. Box 480, SE-751 06 Uppsala, Sweden. *Spanning Trees and Khovanov Homology*.

Thistlethwaite showed that the Jones polynomial is a weighted sum over spanning trees of the Tait graph, obtained by checkerboard coloring a knot diagram. We show that there exists a complex generated by these spanning trees whose homology is the reduced Khovanov homology. In fact, the spanning tree complex is a deformation retract of Khovanov's reduced complex. For alternating links, this complex is the simplest possible because all boundary maps are zero. Also, the reduced Khovanov homology of a  $k$ -almost alternating link lies on at most  $k + 1$  adjacent lines. This is joint work with Ilya Kofman and Oleg Viro. (Received February 10, 2005)