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Nguyen D Duong* (ndduong@crimson.ua.edu) and **Lawrence P Roberts**. *Bordered Khovanov homology: spanning tree models and a planar algebra structure*. Preliminary report.

Khovanov homology is an invariant of oriented knots and links which categorifies the Jones polynomial. In an attempt to calculate Khovanov homology from tangles, L. Roberts defined a bordered version in Khovanov homology. In this talk, I will describe how to twist Roberts' invariants to obtain twisted invariants of tangles (type A and type D structures). The type A and type D structures admit explicit spanning tree models. I will also discuss work-in-progress with L. Roberts toward constructing a planar algebra structure in bordered Khovanov homology. We define an invariant (type DA structure) for tangles subordinate to disc configurations. This type DA structure will induce a morphism from the planar algebra of tangle diagrams to the category of A_∞ modules. (Received January 31, 2015)