Olga Plamenevskaya* (olga@math.sunysb.edu), Department of Mathematics, Stony Brook University, Stony Brook, NY 11794. *Khovanov homology and contact structures*.

Contact structures on 3-manifolds come in two flavors, tight and overtwisted. I will explain how one may detect tightness in a combinatorial way, via Khovanov homology and related ideas. Examples where this method applies include some non-fillable contact structures. (Received August 19, 2008)