

Meeting: 1003, Atlanta, Georgia, SS 15A, AMS Special Session on Quantum Topology, I

1003-57-1659 **Marta Asaeda, Jozef Przytycki and Adam S Sikora*** (asikora@buffalo.edu), 244 Math Bldg., SUNY Buffalo, Buffalo, NY 14260. *Categorification of the Temperley-Lieb algebra*. Preliminary report.

We define new homology groups of tangles which are invariant under isotopies and prove that they “categorificate” the skein module of tangles or, equivalently, the Temperley-Lieb algebra. Additionally, for any tangle T_3 composed of tangles T_1 and T_2 we define a spectral sequence converging to the homology of T_3 whose E^2 term is composed of homologies of T_1 and T_2 . (Received October 06, 2004)