1117-57-503   **Alexander Ellis**, **Ina Petkova*** (`ina@math.columbia.edu`) and **Vera Vertesi**. *Tangle Floer homology and quantum $gl(1|1)$.*

The Reshetikhin-Turaev construction for the standard representation of the quantum group $gl(1|1)$ sends tangles to $\mathbb{C}(q)$-linear maps in such a way that a knot is sent to its Alexander polynomial. After a brief review of this construction, I will give an introduction to tangle Floer homology — a combinatorial generalization of knot Floer homology which sends tangles to (homotopy equivalence classes of) bigraded dg bimodules. Finally, I will discuss how to see tangle Floer homology as a categorification of the Reshetikhin-Turaev invariant. This is joint work with Alexander Ellis and Vera Vertesi. (Received January 19, 2016)