1086-57-218 **Carmen L. Caprau*** (ccaprau@csufresno.edu), Department of Mathematics, California State University, Fresno, CA 93740. *Foams and $sl(n)$ tangle cohomology.* Preliminary report.

We construct an integer (co)homology theory for tangles via a special type of dotted foams and 4-valent webs, which for the case of closed tangles, thus links, is a categorification of the quantum $sl(n)$ link polynomial (for $n > 3$).

Our construction uses a rank n Frobenius extension and its associated 2-dimensional TQFT with dots, together with a Bar-Natan type tautological functor, and provides efficient computations of the resulting invariant. Moreover, our link homology is isomorphic to Khovanov-Rozansky link homology. (Received August 07, 2012)