

1096-57-1442

**Carmen L Caprau\***, 5245 North Backer Avenue M/S PB 108, Fresno, CA 93740. *On a categorification for the  $sl(n)$  polynomial (for  $n > 3$ )*. Preliminary report.

We use a special type of singular cobordisms, called foams, and a slightly modified version of the MOY state model for the  $sl(n)$  link polynomial (for  $n > 3$ ) to develop an integral cohomology theory corresponding to a rank- $n$  Frobenius extension, which categorifies the  $sl(n)$  polynomial. In order to obtain a theory that provides efficient computations, we develop our construction so that it works for tangles, as well.

In this talk we explore our approach to the  $sl(n)$  cohomology theory, discuss the results gained, difficulties encountered, and efforts made to overcome them. (Received September 15, 2013)