

# Topology Seminar

**Ben Knudsen**

of Harvard University will be speaking on

## Toward the cohomology of the pure elliptic braid group

on October 22 at 4:30 in  
MIT Room 2-131

I will report on a program of research aimed at computing stable multiplicities of symmetric group representations in the cohomology of the ordered configuration spaces of the torus. Our approach is premised on a multiplicative decomposition of configuration spaces of product manifolds in terms of a Boardman–Vogt tensor product of operadic modules. The decomposition gives rise to a “Kuenneth” spectral sequence with second page identifiable in purely algebraic terms. The spectral sequence collapses in characteristic zero, reducing such computations to problems in the complex representation theory of certain combinatorial categories. This work is joint with W. Dwyer and K. Hess.

For information, write: [zhulin@mit.edu](mailto:zhulin@mit.edu)