

1061-55-37

Dev P. Sinha* (dps@uoregon.edu), Department of Mathematics, University of Oregon, Eugene, OR 97403. *New results on the cohomology of symmetric groups.*

I will present a basis for the mod-2 cohomology of symmetric groups, given by generalizations of Young diagrams called skyline diagrams. I will give formulae for cup products and Steenrod algebra action. I will also describe some work in progress on applications to homotopy theory, in particular to higher-order cohomology operations and framed cobordism invariants. (Received March 11, 2010)