

1112-05-249

Carolina Benedetti, Joshua Hallam* (hallamjw@wfu.edu) and **John Machacek**. *A combinatorial Hopf algebra of simplicial complexes*. Preliminary report.

In this talk, a combinatorial Hopf algebra for simplicial complexes will be discussed. In particular, we will give a cancellation-free formula for its antipode. Then we will define a family of characters. These characters will be used to generate symmetric functions which encode information about colorings of the simplicial complex as well as its f -vector. (Received August 05, 2015)