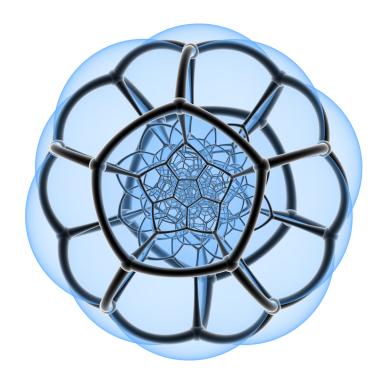# The Oliver Club

www.math.cornell.edu/~oliver/

Patricia Hersh, North Carolina State & Cornell University

Regular CW Complexes, Total Positivity and Bruhat Order

For regular CW complexes, one may deduce topological structure from the combinatorics of the poset of closure relations on cells. However, two different stratified spaces with the same closure poset may have very different topological structure. I will discuss this interplay of combinatorics with topology, including the positive resolution of a conjecture regarding the topology of stratified spaces having the intervals of Bruhat order as their closure posets. A key ingredient is a new criterion for deciding if a finite CW complex is regular with respect to a choice of characteristic maps. I will review background and history of this area along the way.

**Thursday, November 4, 2010
at 4:25 PM in 406 Malott Hall**

Refreshments will be served at 3:55 PM in the Mathematics Department lounge (532 Malott Hall).