1086-20-2002 **Daniel Bragg** and **Nathaniel Thiem*** (thiemn@colorado.edu). *The representation theory of unipotent groups and a family of q-analogues to binomial coefficients.* Preliminary report.

Finite unipotent groups have notoriously difficult representation theories. For example, it remains undecided whether the number of irreducible representations of the maximal unipotent subgroups of the finite general linear group is polynomial in the size of the underlying field. However, by considering these groups as an infinite family and squinting a little, one obtains a rich Hopf structure which has a cornucopia of largely unexplored combinatorics. This talk will give some examples of combinatorial objects that naturally arise in this way, including a family of $q$-analogues to binomial coefficients that depend on finite posets. (Received September 24, 2012)