1056-20-756Michael E. Orrison* (orrison@hmc.edu), Department of Mathematics, Harvey Mudd College,
301 Platt Blvd., Claremont, CA 91711. Algebraic Voting Theory.

In this talk, I'll give a brief introduction to what might be called "algebraic voting theory." In particular, I'll show how the representation theory of the symmetric group can play a natural and sometimes surprising role when it comes to formulating and answering questions in voting theory. Along the way, I'll describe how this approach can say something interesting about tests of uniformity for rank data, and I'll introduce an intriguing and algebraically motivated extension of the Condorcet criterion. (Received September 16, 2009)