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**Karl-Dieter Crisman\*** ([karl.crisman@gordon.edu](mailto:karl.crisman@gordon.edu)). *The Borda Count, the Kemeny Rule, and the Permutahedron.*

Whether we vote for one candidate out of many, or get to rank all of them, voting and choice theory often asks procedures to obey some ‘fairness’ criteria. One natural such criterion is ‘reversal symmetry’; the Borda Count (similar to what is used in college football rankings) and Kemeny Rule are two well-known processes which fulfill this criterion *in addition to* other symmetries.

One can use the algebra of whatever symmetries one has to analyze choice procedures. It turns out that just as the symmetric group naturally encodes permutational symmetry, adding reversal symmetry can be represented by the symmetries of the *permutahedron* (and its representation theory).

In this talk, we use this algebra to find a direct connection between the Kemeny Rule and Borda Count. Namely, they turn out to be special cases of a new one-parameter family of choice procedures, all of which are maximally symmetric with respect to the permutahedron. (Received August 11, 2010)