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Friday, March 2nd, 4:10 - 5:00 p.m.

In Surge 268

(Some of) The Mathematics of Approval Voting

Dr. Kevin Costello, UC Riverside

What is the best way to pick a committee? We will examine elections of the following form: a committee of size k is to be elected, with two candidates running for each position. Each voter submits a ballot with his or her ideal committee. What is the best way to tally up the votes to pick the winning committee? We will look at two possible ways to do so: majority voting and approval voting. We will define and investigate approval voting and explain potential advantages of this type of election. Then we will reveal minimum approval ratings of such elections for an arbitrary voting pool as well as for a "semi-agreeable" voting pool, all while using the mathematics of Pascal's triangle and hypercubes.

mathdept.ucr.edu/mathclub.html