

Voting, Ranking, and the Curl



**Friday
March 29**

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**PS 308
4:00 pm**

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Suppose you are in a situation where you have to pick a winner from a set of candidates, and the information you are given consists of a list of pairwise preferences between them.

You might be faced with such a problem in case of ranking football teams according to the results of a tournament, in the event of a vote where voters are given more freedom to fine-tune their votes, or if you would want to rank web pages according to the links they provide between each other.

We try to sketch answers to the following questions. What properties should such a selection process possess? And what are the methods to obtain such a ranking? In a more recent approach to this problem techniques from (e.g. electrical) field theory have been used.