



Simultaneous Elicitation of Committee and Voters' Preferences

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Scenario

Setting: Incompletely specified profile and positional scoring rule

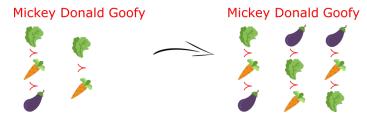


Goal: Development of an incremental elicitation protocol based on minimax regret

Pairwise Max Regret Computation

The computation of the regret of selecting ***** as a winner instead of choosing ***** can be seen as a game in which an adversary both:

chooses a complete profile



chooses a feasible weight vector

$$(1,?,0) \longrightarrow (1,0,0)$$

in order to maximize the difference of scores



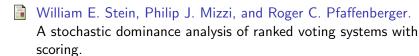
C. Boutilier, R. Patrascu, P. Poupart, and D. Schuurmans. Constraint-based Optimization and Utility Elicitation using the Minimax Decision Criterion.

Artifical Intelligence, 170(8-9):686-713, 2006.



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Robust approximation and incremental elicitation in voting protocols. In *Proceedings of IJCAI 2011*, pages 287–293, 2011.



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Positional scoring rules with uncertain weights.

In Scalable Uncertainty Management - 12th International Conference, SUM 2018, Milan, Italy, October 3-5, 2018, Proceedings, pages 306–320, 2018.