

PREFERENCES AND PROPORTIONALITY

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These days large language models are transforming many fields with their ability to generate rich, human-like text. In the first part of this talk, I'll introduce some generative models for rankings, seeking to create an "engine" for simulating ranked voting. In other words, faced with a set of candidates, possibly broken down into several types, how are people likely to rank their preferences? I will relate these new models to IC, IAC, spatial models, mixed Mallows models, and everything else I can find in the literature. In the second part, I'll define and describe a definition of proportionality for ranked voting with two nice features: it fits into the Arrow framework of ranked preferences to elect a representative body, and it is set up to comport with the work of voting rights practitioners.

These are key steps in a research program to better understand how different voting rules lead to qualitatively different representation, according to various possible norms of representative democracy. I'll particularly pay attention to the question of whether STV, a popular multi-winner ranked choice election method, tends to produce proportional representation.