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### **Title**

Forecast Aggregation using Imputed Accuracy

### **Abstract**

Recent forecasting research has shown that a forecaster's past accuracy is predictive of her future accuracy. In settings, where participants report forecasts on several events and where some event outcomes materialize earlier than others, a forecaster's accuracy on early-closing events can be used to improve weighted forecast aggregation. In this paper, we propose and implement a new class of aggregation algorithms that uses a forecaster's accuracy without relying on any early-closing events. The key idea is to impute a forecaster's accuracy on open events using the average quadratic distance between her forecast and a "ground truth proxy". An example of such a proxy is the median of forecasts. We explain the theoretical motivation behind this approach and emphasize its practical effectiveness using data from a large-scale geopolitical forecasting tournament.

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