

Robust Aggregation of Correlated Information ( joint with Henrique de Oliveira and Xiao Lin).

### **Abstract**

An agent makes decisions based on multiple sources of information. In isolation, each source is well understood, but their correlation is unknown. We study the agent's robustly optimal strategies—those that give the best possible guaranteed payoff, even under the worst possible correlation. With two states and two actions, we show that a robustly optimal strategy uses a single information source, ignoring all others. In general decision problems, robustly optimal strategies combine multiple sources of information, but the number of information sources that are needed has a bound that only depends on the decision problem. These findings provide a new rationale for why information is ignored.