

## Moral Hazard, Certification, and Information Design (joint with Boaz Zik)

### Abstract:

This paper studies a model where an agent exerts unobservable, costly effort to stochastically achieve competence. While the agent knows their effort cost, this cost is initially unknown to the market. To incentivize effort, the principal employs two tools: a public signal about the agent's effort cost, issued before the effort decision, and an imperfect certification test (a Blackwell experiment) that provides direct information about the agent's realized competence. The market updates its belief about competence based on both the signal and test outcome, which determines the agent's payoff.

We fully characterize this double information design problem. Our results show that, for any certification test, the optimal signal about the agent's cost is an "upper censorship," and we identify the corresponding agent's cutoff type. This characterization allows us to determine the optimal certification test from any feasible set. In addition, we show that the principal can achieve the optimal expected level of competency through a price menu for the certification test, that is, even without knowing the agent's cost of exerting effort.