

A common-value auction

Submit the best possible bid in a common-value auction!

During the workshop, we will auction off two paintings by two renowned artists: Aniela Dworczak (1 year old) and Alex Lucier (3 years old). The authenticity is guaranteed by the organizing committee.



Aniela Dworczak, 'Quiet before the storm', crayons on paper



Alex Lucier, 'Progression of Inquiry', paint and sponge on paper

The paintings are of equal value, appraised by the organizing committee to be S . We cannot tell you what S is... but we can promise that it is drawn **uniformly from $[\$0.00, \$100.00]$** .

Each workshop participant will receive her private signal before the workshop via email. Signals are drawn as follows. Factors $\lambda_i, i = 1, 2, \dots$ are drawn **i.i.d. uniformly at random from $[0, 2]$** . Your signal is $X_i = \lambda_i S$.

The paintings will be auctioned off during the workshop. However, **no actual payment by the winner is required**. Instead we will **simulate** two different auction rules, as follows:¹

Aniela's painting is auctioned off using a **simulated second price auction**. The winner is the person bidding **closest to the true value S** .

Alex's painting is auctioned off using a **simulated first price auction**. The winner is the person with the **highest bid below the true value S** .

You can submit your bid (one per auction) by **visiting our auction house** in Gather.town.

Hint: We chose the distributions so that you can compute the optimal bid (assuming no information acquisition). But information gathering seems like a faster way to get to the optimal bid! **Information acquisition is allowed and encouraged**.

We will share the empirical distribution of bids, along with a few conclusions about relative auction performance, a few days after the workshop.

The winners will be announced. **We will donate to charity an amount equal to the sum of (1) the highest bid lower than the winner's bid in the SPA, and (2) the winner's bid in the FPA. The respective winners will choose the charity.** Additionally, we're happy to mail them the paintings.

¹ Since we aren't collecting payments, these auction rules are designed to simulate the incentives in first-price and second-price auctions.