Overview

- Role of information reporting in auctions
- What is the best strategy for the seller to do to maximize his expected revenue?
- Develop a general auction model with risk-neutral bidders. The general model includes the independent private values model and the common value model as special cases.
1 object, \( n \) risk-neutral bidders

The actual value of the object to bidder \( i \) is denoted by 
\[ V_i = u_i(S, X) \]

where \( X \) is a vector of signals and \( S \) is a vector of variables influencing the value of the object.

Key assumption: The variables in \( X \) and \( S \) are affiliated.

"affiliation" roughly means: “a high value of one bidder’s estimate makes high values of the others’ estimates more likely”

Look at different forms of auctions and implications from this key assumption each case.
Results

- Prices can depend only on the reports that the bidders make and on the seller’s information revealed.

  - **FPA**
    - Revealing the seller’s info links the price to that info.
    - No linkages to the other bidder’s estimates. This yields the lowest expected price.

  - **SPA**
    - The price is linked to the estimate of the second-highest bidder and revealing info links the price to that info as well.

  - **Eng**
    - The price is linked to the estimates of all the non-winning bidders and to the seller’s estimates as well (if revealed).
    - with linkages to all of the estimates, this yields the highest expected price.
Conclusion

- Assuming symmetry, revelation of the seller’s information increases expected revenue provided the seller’s information, the informed bidder’s information, and the value of the object are all affiliated (or the seller’s information is a subset of the informed bidder’s), “Honesty is the best policy.”
- “Linkage Principle”
- Rank auctions by expected revenue: English $\geq$ SPA $\geq$ FPA
- The results explain the frequent use of english auctions and the reporting of expert appraisals by reputable auction houses.