

First part: bookwork. Auctions are strategically equivalent if one can be reformulated as the other, so that the same strategies yield the same outcomes. A weaker concept is revenue equivalence, which means that the auctions raise the same amount of money. The revenue equivalence theorem says that under ideal conditions (risk-neutral bidders, not affiliated, and a suitable reserve price so that the bidder with the lowest value gets zero surplus) all auctions yield the same.

Second part: Misconduct such as bidding rings can break equivalence, as first-price auctions can be harder to rig; an online form of 'misconduct' is the 'sniping' on eBay which introduces edge effects.

Also, risk-averse bidders will bid higher at a first-price auction - example being UK spectrum auctions

Another example: budget constraints, which means (for example) that all-pay auctions may be more profitable; hence growing litigation?

Other examples mentioned in the lectures include externalities between bidders (e.g. arms sales) and tacit collusion games as seen in US spectrum auctions, which raised all sorts of covert channel issues