Ascending Core-Selecting Package Auctions

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Abstract

This paper formulates ascending-price package auctions, which select an outcome in the core. Core-selecting pricing is adopted in some practical package auction designs. However, sealed-bid core-selecting package auctions generally have many Nash equilibria in the bidder-optimal core. We consider the equilibrium refinement by subgame perfection. When bidders have single-minded preferences, any core-selecting package clock auction has a unique subgame perfect outcome in the bidder-optimal core under some plausible criteria. The equilibrium outcome is generally "unfair" in the sense that winners with lower valuations tend to obtain higher profits. When bidders have general preferences, package clock auctions still have multiple subgame perfect equilibria.

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