

The private value single item bisection auction

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#### ABSTRACT

In this paper we present a new iterative auction, the bisection auction, that can be used for the sale of a single indivisible object. We will show that the bisection auction is computationally more efficient than the classical English auction while it still preserves all characteristics the English auction shares with the Vickrey auction: there exists an equilibrium in weakly dominant strategies in which everyone truthfully reveals his information, the object is allocated in accordance with efficiency requirements to the buyer who has the highest valuation, and the price paid by the winner of the object equals the second-highest valuation.