

AUCTIONS OF IMPERFECT SUBSTITUTE OBJECTS

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ABSTRACT. We analyze equilibrium behavior in first-price auctions of heterogeneous goods that are imperfect substitutes. We show that an equilibrium in pure strategies exists, and we derive some comparative statics analysis of that equilibrium. In the special case of symmetric auctions, the symmetric equilibrium is shown to be unique. Moreover, bid shading depends on the degree of substitutability between different objects. In particular, when preferences are subadditive, types that have a strong preference for one object over the other will engage in substantial bid shading. We argue that our model provides a natural theoretical framework for future empirical work on auctions of substitute goods.

KEYWORDS: Auctions, substitute goods, proportional shading

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