

Adverse Selection and Auction Design for Internet Display Advertising

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ABSTRACT

We model an online display advertising environment with brand advertisers and better-informed performance advertisers, and seek an auction mechanism that is strategy-proof, anonymous and insulates brand advertisers from adverse selection. We find that the only such mechanism that is also false-name proof assigns the item to the highest bidding performance advertiser only when the ratio of the highest bid to the second highest bid is sufficiently large. For fat-tailed match-value distributions, this new mechanism captures most of the gains from good matching and improves match values substantially compared to the common practice of setting aside impressions in advance.

Categories and Subject Descriptors

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auctions, adverse selection, market design