**Title:** How to Boost Revenues in First-Price Auctions? The Magic of Disclosing Only Winning Bids from Past Auctions

**Authors:**
Philippe Jehiel  
Paris School of Economics and Department of Economics and ELSE, University College London  
Campus Jourdan  
48 Boulevard Jourdan  
Building E, 2nd floor, office 25  
75014 Paris  
PH: +33 143 136 386  
jehiel@enpc.fr

Peter Katuščák  
University of Arkansas and University of Economics in Prague  
Sam M. Walton College of Business  
Business Building 301  
Fayetteville, AR 72701  
USA  
PH: +1 (479) 575-5949  
FX: +1 (479) 575-3241  
peter.katuscak@gmail.com

Fabio Michelucci  
CERGE-EI  
Politickych veznu 7  
110 00 Praha 1  
Czech Republic  
PH: +420 224 005 117  
FX: +420 224 005 444  
fabiomichelucci@gmail.com

**Extended abstract:**
Consider an auctioneer who repeatedly sells identical or similar items using a first-price sealed-bid auction. The auctioneer has a choice of what information about past auctions to disclose. We hypothesize that disclosing winning bids generates more revenue in the steady state than disclosing all bids. This is due to some bidders not realizing that winning bids are not representative of all bids and hence best-responding to the historical distribution of winning bids. We test this hypothesis using a laboratory experiment in which bidders repeatedly compete in pairs drawn from a group of 12 subjects and receive feedback only about the aggregate distribution of bids or winning bids in the group before the next repetition of bidding. Bidders receive no feedback about the outcome of their individual auctions until the end of the experiment. After 11 repetitions of bidding, we observe that the distribution of bids in the winning-bids treatment first-order stochastically dominates the distribution of bids in the all-bids treatment. Under the uniform distribution of valuations, the average revenue is 8
percent higher in the winning-bids treatment, consistently with our hypothesis. To test our hypothesis further, we perform a structural estimation of best-responses. Using bids from the all-bids treatment, we estimate a CRRA risk aversion parameter for each subject. We repeat the same exercise for the winning-bids treatment, with the exception that the estimated parameters now represent a combination of risk aversion and bias in best-responding. Comparing the two distributions of parameters allows us to identify the average extent of the bias in perceiving the distribution of competing bids. We find that a significant fraction of bidders are subject to such bias, consistently with our hypothesis. Moreover, the ones who are not are also affected since they respond to higher competing bids.

Keyword(s): auctions, bidding, feedback, mechanism design

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