EXPOSURE PROBLEM IN MULTI-UNIT AUCTIONS\textsuperscript{*}

Hikmet Gunay and Xin Meng\textsuperscript{†}
University of Manitoba

April 13, 2009

Abstract

We characterize the optimal bidding of local and global bidders for two licenses in a multi-unit simultaneous ascending auction. The global bidders want to win both licenses to enjoy synergies. This gives them incentive to bid aggressively in the sense that they bid more than their stand alone valuation of a license. This exposes them to the risk of losing money, since they may win only one license. We characterize the optimal bidding in the presence of exposure problem. We show that a global bidder may make a loss even if it wins all licenses. Later, we show that if “bid withdrawal” rule is introduced to the auction, the exposure problem disappears, and the simulation results show that revenue will be higher.

\textbf{JEL Codes:} D44, D82

\textbf{Keywords:} Multi-Unit Auctions, Exposure Problem, Bid Withdrawal, Synergies

\textsuperscript{*}Preliminary and incomplete version. Please do not cite.
\textsuperscript{†}Xin Meng acknowledges financial support from Social Sciences and Humanities Research Council (SSHRC) in form of the SSHRC Doctoral Fellowship.