

# Worst-Case Optimal Redistribution of VCG Payments in Multi-Unit Auctions

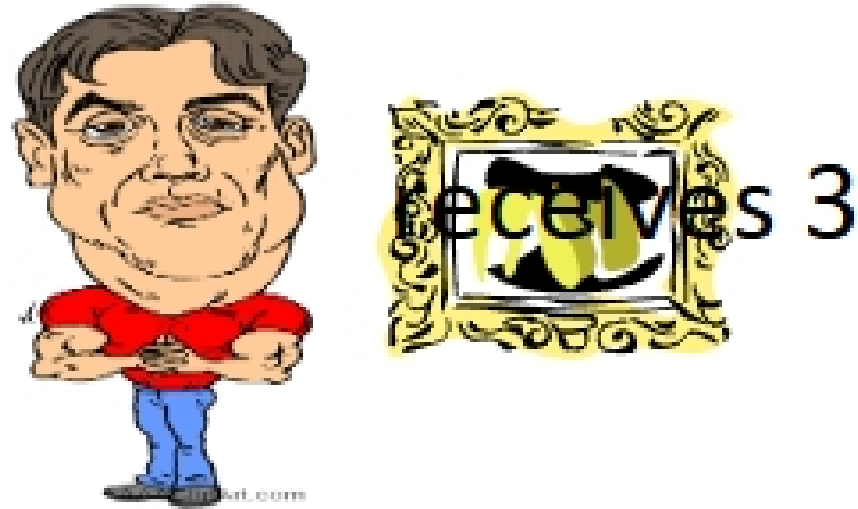
Mingyu Guo

Guest Lecture CPS 196.1/296.1 Fall 09

This talk covers material from:

Guo and Conitzer, "Worst-Case Optimal Redistribution of VCG Payments in Multi-Unit Auctions" GEB 2009

# Second-price (Vickrey) auction



$$v(\text{picture}) = 2$$

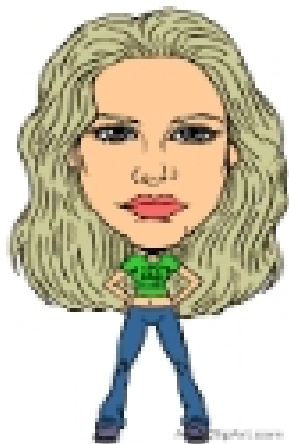
$$v(\text{picture}) = 4$$

$$v(\text{picture}) = 3$$

$$v(\text{picture}) = 2$$

$$v(\text{picture}) = 4$$

$$v(\text{picture}) = 3$$



pays 3



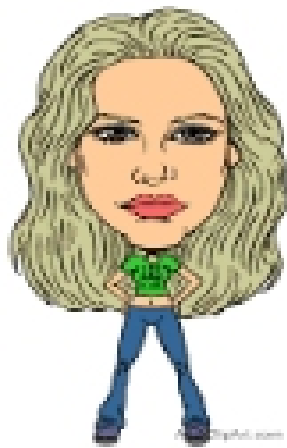
# Vickrey auction without a seller



$$v(\text{banana}) = 2$$

$$v(\text{banana}) = 4$$

$$v(\text{banana}) = 3$$



pays 3  
(money wasted!)

