

CS344M

Autonomous Multiagent Systems

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Good Afternoon, Colleagues

Are there any questions?

Logistics

- Progress reports due at beginning of class
 - 2 hard copies
 - Attach your proposals
 - Anonymized soft copy

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- FAI talk on Friday at 11 - poker: PAI 3.14

Distributed Rational Decision Making

Self-interested, rational agent

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The protocol is key

Evaluation Criteria

- Social welfare
- Pareto efficiency
- Stability

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- Individual Rationality
- Efficiency (computational, communication)

Voting vs. auctions

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 - result affects all

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- Auctions: maximize profit
 - result affects buyer and seller

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- 1st price auction for my pen
- The top number is your utility
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- Write down your bid
- Repeat with 2nd price auction
- Number under the line is your utility

Auctions

- Valuations:

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Revenue equivalence: private-value, risk-neutral

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- What if it's an antique?

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Auctions vs. voting

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 - result affects buyer and seller
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What about Clarke tax algorithm?