Good Afternoon, Colleagues

Are there any questions?
Logistics

- Tuesday: guest lecture on agent modeling
Logistics

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- Good MAS book linked to webpage
Logistics

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- Good MAS book linked to webpage
- Progress reports due a week from today
  - Beginning of class
Progress Reports

- A few common problems with proposals:
Progress Reports

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  – Too much proposed
Progress Reports

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Progress Reports

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  - May reflect side forays
  - Be more realistic
  - Be much more specific
Class Discussion

Tanner Trimble on game theory and basketball
Matching Pennies

- We each turn put a penny down covered
- If they match, I win, if they don’t, you win
Matching Pennies

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<th>H</th>
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<tr>
<td>H</td>
<td>1, -1</td>
<td>-1, 1</td>
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<tr>
<td>T</td>
<td>-1, 1</td>
<td>1, -1</td>
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Player 1

Player 2
Matching Pennies

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\begin{array}{c|cc}
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H & 1,-1 & -1,1 \\
T & -1,1 & 1,-1 \\
\end{array}
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Nash equilibrium?
Mixed strategy equilibrium

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<th>Player 1</th>
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<td>Action 1</td>
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<td>Action 2</td>
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**Mixed strategy equilibrium**

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<tr>
<th>Player 1</th>
<th>Action 1</th>
<th>Action 2</th>
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<tbody>
<tr>
<td>Action 1</td>
<td>4,8</td>
<td>2,0</td>
</tr>
<tr>
<td>Action 2</td>
<td>6,2</td>
<td>0,8</td>
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Do actual numbers matter?

Peter Stone
Focal points

- We will both be in Paris for some time in June.
- We both know that we will both be there on the 15th.
Focal points

• We will both be in Paris for some time in June.

• We both know that we will both be there on the 15th.

• Something happens so that we must meet on that day.

• We have no way of getting in touch.
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• When and where?
Focal points

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- We both know that we will both be there on the 15th.
- Something happens so that we must meet on that day.
- We have no way of getting in touch.
- When and where?
- What are the Nash equilibria?
Discussion

• How useful is the concept of Nash equilibrium?