SOCIAL DISTANCING MECHANISM

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GOAL

• How Game Theory can relate to Coronavirus
• What strategies we can use based on this theory to limit spread yet return to normalcy
WHAT IS GAME THEORY?

• Strategic interaction
• I’ll choose my best response, based on
  What response you’ll choose, based on
  What I’ll choose, based on
  What you’ll choose…

[Diagram showing game theory concepts such as players, rules, consequences, and payoffs]
CORONAVIRUS AS A GAME

- The game takes place on a social network graph
- Players: People and the virus
  - Human Strategy: Stay healthy and happy
  - Selfish optimal may involve cheating
  - Altruistic Strategy: Limit spread of virus
  - Virus “Strategy”: Spread to as many people as possible (adversarial model)
COLOR CODING/NUMBER SYSTEM

• Strategy: partition population into groups to limit spread of virus
• Grocery Store Shopping → Certain groups can go certain days (avoid crowds & spread)

Family 1
     ↓
Friday

Family 2
     ↓
Saturday

Family 3
     ↓
Sunday

Family 4
     ↓
Monday
SCHOOL DAY SYSTEM

**Team 1**
- Attend school classes in person on odd days (1,3,5)
- Zoom classes on even days (2,4,6)
- Team zooms for 2 weeks if anyone gets virus

**Team 2**
- Attend school classes in person on even days (2,4,6)
- Zoom classes on odd days (1,3,5)
- Team zooms for 2 weeks if anyone gets virus
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