**Transportation networks and congestion**

- Cost of congestion in wasted fuel and time:
  - United States: $121 billion in 2011
  - Estimated to cross $199 billion in 2020
- Traffic causes 31% of all US CO₂ emissions
- Public transit: overcrowding
- Current solutions:
  - Congestion pricing, road rationing
  - Viewed as just another tax
  - Usually requires enforcement and political mandate
- Capacity addition: expensive and limited

**Congestion problems at Stanford**

- Agreement with Santa Clara County:
  - Limit peak hour traffic
  - Fines and restrictions for exceeding the limit
- Current solutions:
  - Cash rewards for not driving
  - Reserved parking spaces for carpoolers
  - Discount transit passes
- etc.

**Incentives**

- **Auto commutes: RFID**
  - Off-peak commutes earn 10 points each.
  - Boost day: 5x credits for eligible trips on chosen day of the week.

- **Walking / biking commutes: app**
  - Commutes are rewarded by duration.

**Personalization and "Trendjacking"**

- In games with low stakes, players are more risk-seeking

**Results**

- **RFID Commute Density**
  - Capri users commute less during peak hours compared to the general Stanford population.

**Statistics (as of Jan 28, 2014)**

- **Capri Registrations**
  - Number of participants: 4534 signed up
  - Number of trips: 573,099 RFID scans
  - Total rewards given: $143,388

**Conclusions**

- Capri aims to mitigate the traffic congestion problem in Stanford, especially during peak hours.
- With incentives through games, personalized offers and trendjacking, we observe behavior shifts in users’ commutes: more commutes during off-peak hours and walking / biking commutes.

**Related work**


**Media coverage**

- The New York Times
- The Wall Street Journal
- Stanford Report