Games & Strategic Design
- Repeated and Stochastic Games
  - Social norms
  - Reputation systems – Moral Hazard and Adverse Selection
  - Tokens
  - Information Disclosure
- Resource Allocation Games
- Strategic Network Formation Games
- Learning in Games
- Network Economics
  
  **Applications:** networks, network science, cognitive radios, wireless networks, smart grids, security etc.

Big Data, Online Learning, Stream Mining, Reinforcement Learning
- Multi-agent learning
- New Classes of Multi-Armed Bandits
- Active learning and Distributed online learning
- Stream mining
  - Online classification
  - Classifier topologies
  - Distributed learning
  - Scheduling and systems
- Recommender systems
- Prediction methods in networks and systems, Event detection methods
  
  **Applications:** healthcare, social networks, e-commerce, transportation, smart grids, multimedia etc.
- Online Decision Making and Learning in Networks and Systems
  - Markov Decision Processes
  - Structural learning
  - Reinforcement learning
  - Multi-user learning
  - Multi-armed bandits
  
  **Applications:** cross-layer design, multimedia, networks, cognitive radios, wireless networks, multi-hop wireless networks, smart grids, multi-core processors etc.

Past topics:
Multimedia compression, processing and systems
Energy-efficient multimedia

For more information about our work - see our publications at [http://medianetlab.ee.ucla.edu/publications.html](http://medianetlab.ee.ucla.edu/publications.html)
see our involvement in UCLA Center for Engineering Economics, Learning, and Networks at http://netecon.ee.ucla.edu