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Game-Theoretic Planning for Risk-Aware Interactive Agents

Stanford researchers have developed a time efficient and safer algorithm for autonomous cars that combines game theory and risk awareness. This algorithm computes approximate feedback Nash equilibria where all agents are risk aware, a novel approach. As such, interactions between risk-aware agents more closely replicates human behavior. Testing their algorithm on merging and roundabout driving scenarios led to faster and safer decisions over current models where risk sensitivity or game interaction are ignored.

Stage of Research

- Proof of concept

Applications

- **Autonomous driving**
- Situations requiring risk-sensitive model of agent interactions

Advantages

- **Risk-sensitive model with agent interactions**
- Time efficient behavior
- Higher safety

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