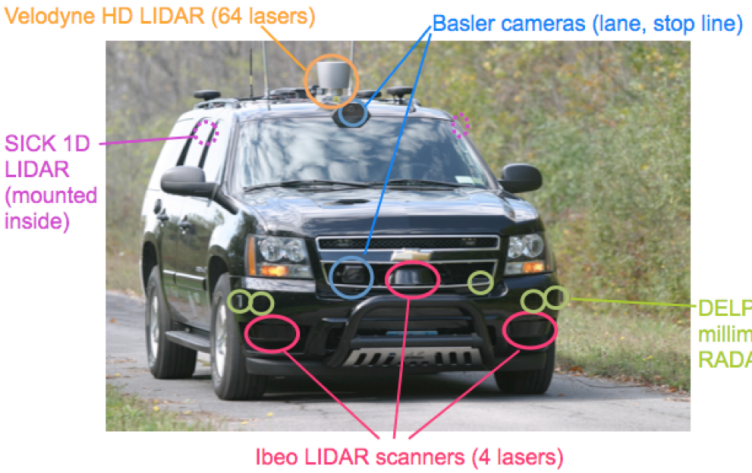
Tightly Integrated Perception and Planning in Intelligent Robotics

Mark Campbell, Dan Huttenlocher, Hadas Kress-Gazit
Cornell University

Objective: Tightly integrates probabilistic perception and deterministic planning in a formal, verifiable framework



- ***Representations*** – new techniques for constructing and maintaining representations of dynamic environments.
- ***Anticipation and Motion Planning*** - methods to anticipate changes in the environment and use them as part of the planning process.
- ***Verifiable Task Planning*** - providing probabilistic guarantees for high-level behaviors.