**Short term**

* Collaborative learning under decoupled LTL constraints with communication restrictions (stationary obstacles, MDPs) for homogenous agents.

Possible items to incorporate from Scott's proposals:

* Control (not necessarily even multiagent) for a given specification while maximizing '*line of sight'* with certain areas/states.
* Learning/exploration while maximizing '*line of sight'* with certain areas/states.
* The seems easy to do for stationary obstacles, as you can compute offline all states that are in line of sight.

Issues

* It is not clear how to handle this with moving targets as the line of sight will be changing at runtime. At least without accounting for all possible target locations in offline policy generation which will blow up the state space.

**Initial proposal –** Have an agent (single initially) attempt to satisfy a specification on an MDP while trying to maintain vision (line of sight) with a stochastically moving target.

Medium term

* Collaborative control with 'mild' coupling – collision avoidance (possibly using the transfer entropy techniques).
* Collaborative control with stronger coupling – coupled specifications
* Establishing heterogeneity in dynamics for the agents. The meaning of heterogeneity will depend on framework. For an MDP it will mean probabilistic transitions. Not sure how to incorporate velocities.