

# Fast optimisation

- From PMP a sequence of a constraint optimisation for each time step
- Dynamics-Lagrangian-multipliers in closed-form, Hamiltonian gradient same as Reward gradient
- Optimisation (analytical) up to (second) order in dynamics-reward model
- State and action constraints (analytical) up to second order
- “An interior point algorithm for large-scale nonlinear programming”
  - “trust-constr” used for experiments (we use BFGS)

# Experiments