| Date | Lecture | Theme | Lecturer | Reading | Scribe |
|---|---|---|---|---|---|
| 15-Jan-09 | Trajectory Optimization, Jacobian Transpose and Gradient methods | Model-based control | CGA | | ALARFAJ, MISHARI SAUD |
| 20-Jan-09 | Markov Decision Processes and Discrete Time State Space Models | Model-based control | JAB | **Chapter 14, Probabilistic Robotics** | ARABAGI, VEACESLAV |
| 22-Jan-09 | Linear Progamming, Dynamic Programming and Value-iteration | Model-based control | JAB | **http://www.cs.ualberta.ca/~sutton/book/3/node1.html** | BECKER, BRIAN |
| 27-Jan-09 | Iterative Learning Control and Approximately Correct Models, LQR | Model-based control | CGA | http://portal.acm.org/citation.cfm?id=1143844.1143845 , (Using inaccurate models in reinforcement learning); | BISWAS, JOYDEEP |
| | | | | **(Robot Trajectory Learning thorough practice) http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=1087423** | |
| 29-Jan-09 | Policy Iteration Recap, LPs for Control, Elastic Bands and CHOMP | Model-based control | JAB (guest Zucker and | http://citeseer.ist.psu.edu/old/quinlan93elastic.html | BURNETTE, DONALD JASON |
| 3-Feb-09 | Differential Dynamic Programming and Neighboring Optimal Control | Model-based control | CGA | | CUZZILLO, ELLIOT ALLEN |
| | | | | **http://www-clmc.usc.edu/publications/D/Dyer-OptimalControl1970.pdf** | |
| | | | | http://www.cogsci.ucsd.edu/~todorov/papers/acc05b.pdf | |
| 5-Feb-09 | More neighboring optimal control, imitation learning by neighboring | Model-based control | CGA | | DOGAR, MEHMET REMZI |
| 10-Feb-09 | Imitation Learning as Inverse Optimal Control | Model-based control | JAB | **ACRL/www/learch.pdf** | DUVALLET, FELIX |
| 12-Feb-09 | Maximum Entropy and Inverse Optimal Control | Model-based control | JAB | **http://www.ri.cmu.edu/pubs/pub_6055.html** | GRUBB, ALEXANDER L. |
| 17-Feb | Randomization to Break the Curse of Dimensionality: PRMs, Random | Model-based control | CGA | **http://citeseer.ist.psu.edu/old/408854.html** | GUPTA, ANOOPUM S |
| | | | | http://129.3.20.41/eprints/comp/papers/9403/9403001.abs | |
| | | | | http://ieeexplore.ieee.org/iel5/4220801/4220802/04220832.pdf | |
| 19-Feb | Partially Observed Markov Decision Process, Information States | Model-based control | JAB | **Chapter 15, Probabalistic Robotics-** | KANE, BREELYN |
| 24-Feb | Linear Quadratic Gaussian Systems | Model-based control | CGA | | KIM, JONG EUN |
| 26-Feb | Dual Control and Bayesian Adaptive Control | Model-based control | CGA | | LINDZEY, LAURA |
| 3-Mar | Model-based Value Function Approximation: Function Approximation for MDPs big enough to care | Model-based control | CGA | | LOW, KIAN HSIANG |
| 5-Mar | Theoretical Foundations: Causality and Control as inference | Model-based control | JAB | **http://user.cs.tu-berlin.de/~mtoussai/publications/toussaint-harmeling-** | MAAS, ANDREW LEE |
| Spring Break | | | | | |
| 17-Mar | **Midterm** | | | | |
| 19-Mar | Belief Compression and the Augmented MDP | Model-based control | JAB | | MALHOTRA, ROHAN |
| 24-Mar | Behavior Cloning and Reductions | Model-free control | JAB | | MALISIEWICZ, TOMASZ J |
| 26-Mar | Imitation Learnig by any means necessary | Model-free control | CGA | | MUNOZ, DANIEL JOSEPH |
| 31-Mar | Policy Search Optimization | Model-free control | JAB | | PARK, SOO HO |
| 2-Apr | Bandit problems,and contextual bandit problems | Model-free control | JAB | | PAROLINI, LUCA |
| 7-Apr | Experiment Design and Active Learning | Model-free control | JAB | | PIRNAY, HANS |
| 9-Apr | Learning Search Control | Model-free control | JAB | | RATLIFF, NATHAN DONALD |
| 14-Apr | Temporal Differences and Online Value Approximation | Model-free control | JAB | | RODRIGUEZ GARCIA, ALBERTO |
| 16-Apr | Official class holiday | | | | |
| 21-Apr | Interval Estimation and MDP exploration strategies | Model-free control | CGA | | ROGERS-MARCOVITZ, FORREST |
| 23-Apr | Forgetting Bellman: Policy Search by Dynamic Programming, Conservative Policy Iteration, etc. | Model-free control | JAB | | ROSS, STEPHANE |
| 28-Apr | REINFORCE and policy gradients, Functional Policy Gradient | Model-free control | JAB | | SANAN, SIDDHARTH |
| 30-Apr | Trajectory Libraries | Model-free control | CGA | CGA (JAB out of office) | SOFMAN, BORIS |