

NIMBioS Virtual Tutorial: Adaptive Management

Monday October 26, 5:00-9:30 PM (EDT US)

5:00 PM Introduction and overview

5:30 PM Session 1: Introduction to decision problems

7:00 PM Break

7:30 PM Breakout activity 1: Framing decision problems

8:30 PM Session 2: Introduction to Markov Decision Processes (MDPs)

9:15 PM Day 1 wrap up

Tuesday Oct. 27, 5:00-9:30 PM

5:00 PM Recap of day 1, introduction to day 2

5:15 PM Session 3: Solving MDPs

6:45 PM Break

7:15 PM Breakout activity 2: Hands-on work solving and interpreting MDP problem examples

8:30 PM Session 4: Modeling beliefs, conjugacy and Bayesian updating

9:15 PM Day 2 wrap up

9:30-10:00 PM Social Time in Sococo

Wednesday Oct. 28, 5:00-9:30 PM

5:00 PM Recap of day 2, introduction to day 3

5:15 PM Session 5: discrete model adaptive management (AM)

6:45 PM Break

7:15 PM Breakout activity 3: Development of an AM problem with alternative models

8:30 PM Session 6: More on AM problems (including Dirichlet/multinomial and Gaussian prior/likelihood)

9:15 PM Day 3 wrap up

9:30-10:00 PM Social Time in Sococo

Thursday Oct. 29, 5-9:30 PM

5:00 PM Recap of day 3, introduction to day 4

5:15 PM Session 7: Frontier topics (including projection methods, approximate DP, communicating solutions)

6:45 PM Break

7:15 PM Breakout activity 4: Advanced AM problems

8:30 PM Session 8: Partially observable Markov decision processes (POMDPs)

9:15 PM Workshop conclusion