

Sunday June 11, 2017 (Rackham Fourth Floor)

Tutorials

12:00-1:00pm Registration Check-In

Track 1 (*Rackham Assembly Hall*)
1:00-2:40pm Basic tutorial, (intro to AI/RL track):
Joelle Pineau

Track 2 (*Rackham Amphitheatre*)
1:00-2:40pm Basic tutorial (intro to Bio/psych track):
Anne Collins

Advanced Tutorials (*Rackham Amphitheatre*)

2:45-4:10pm Advanced tutorial, **John Schulman**

4:30-6:00pm Advanced tutorial, **Matthew Botvinick**

Opening Reception (*Private tent—see map on other side*)

6:00pm-12:00am Top of the Park activities

Monday June 12, 2017 (Rackham Auditorium)

7:30-8:30am Registration Check-In and Breakfast
(*Rackham Lobby*)

Session 1 (8:30-10:30am)

8:30-9:10am **Yael Niv**: “Learning State Representations”

9:10-9:30am **Arkady Konovalov; Ian Krajbich**:
“Neurocomputational Dynamics of
Sequence Learning”

9:30-9:50am **Wen Sun; Arun Venkatraman; Byron Boots;
Geoff Gordon; J. Andrew Bagnell**: “Deeply
AggreVaTeD: Differentiable Imitation Learning
for Sequential Prediction”

9:50-10:30am **Anca Dragan**: “Humans Make for Complicated
Transition Models”

10:30-11:00am Coffee/tea break (*Rackham Lobby*)

Session 2 (11:00am-12:20pm)

11:00-11:40am **Uma Karmarkar**: “Choosing without knowing:
biased information processing in ambiguous
decision-making”

11:40am-12:00pm **Asma Motiwala; Sofia Soares;
Bassam Atallah; Joseph Paton; Christian
Machens**: “Variability in judgement
of time is reflected in reward prediction errors
and dopaminergic activity”

12:00-12:20pm **Michael C Mozer; Shruthi Sukumar;
Shabnam Hakimi; Camden Elliott-Williams;
Adrian Ward**: “Overcoming Temptation:
Incentive Design for Intertemporal Choice”

Networking Lunch (*advance RSVP required*)

12:45-2:00pm Michigan League building, Michigan Room,
2nd floor; **Others**: lunch on your own

Session 3 (2:30-4:30pm)

2:30-3:10pm **Jon How**: “Planning under Uncertainty: Theory
and Practice”

3:10-3:30pm **Gautham Vasan; Patrick M. Pilarski**: “Mirrored
Bilateral Training of a Myoelectric Prosthesis
with a Non-Amputated Arm via Actor-Critic
Reinforcement Learning”

3:30-3:50pm **Angela Radulescu; Yuan Chang Leong; Yael
Niv**: “Reward-sensitive attention dynamics
during human reinforcement learning”

3:50-4:10pm **Sean McGregor; Rachel Houtman; Ronald
Metoyer; Claire Montgomery; Thomas
Dietterich**: “Visualizing High-Dimensional
MDPs with Model-Free Monte Carlo”

4:10-4:30pm **Anirudha Majumdar; Sumeet Singh; Marco
Pavone**: “Risk-sensitive Inverse Reinforcement
Learning via Coherent Risk Models”

Spotlights Session 1 (4:30-4:40pm)

Jaden B Travník; Patrick M. Pilarski: “Effective, Time-Efficient
State Representations for Human-Machine Decision Making”

**Melissa J. Sharpe; Chun Yun Chang; Melissa A. Liu; Hannah
M. Batchelor; Lauren E. Mueller; Joshua L. Jones; Yael Niv;
Geoffrey Schoenbaum**: “Dopamine transients are sufficient and
necessary for acquisition of model-based associations.”

David Abel; Emily Reif; Michael Littman: “Improving Solar Panel
Efficiency Using Reinforcement Learning”

Siyu Wang; Robert Wilson: “What is the nature of decision noise
in random exploration?”

Pierre-Luc Bacon; Doina Precup: “Unifying Multi-Step Methods
through Matrix Splitting”

Poster Session 1 (*Rackham Fourth Floor*)

4:40-7:40pm Refreshments and snacks

Banquet (*Michigan League Ballroom*)

7:40pm Speaker: **Margaret Boden**

Tuesday June 13, 2017 (Rackham Auditorium)

7:30-8:30am Breakfast (*Rackham Lobby*)

Session 4 (8:30-10:30am)

8:30-9:10am **Michael Frank**: “Chunking as an adaptively
learned strategy for lossy data compression in
working memory”

9:10-9:30am **Erik Talvitie**: “Self-Correcting Models for
Model-Based Reinforcement Learning”

9:30-9:50am **Adam Morris; Fiery Cushman**: “Can habits be
explained without model-free RL?”

9:50-10:10am **Chao Qin; Diego Klabjan; Daniel Russo**:
“Improving the Expected Improvement Algorithm”

10:10-10:30am **Paul M Krueger; Falk Lieder; Tom Griffiths**:
“Enhancing metacognitive reinforcement learning
using reward structures and feedback”

10:30-11:00am Coffee/tea break (*Rackham Lobby*)

Session 5 (11:00am-12:20pm)

11:00-11:20am **Marlos C. Machado; Marc G. Bellemare;
Michael Bowling**: “A Laplacian Framework for
Option Discovery in Reinforcement Learning”

11:20-11:40pm **Kevin Lloyd; Peter Dayan**: “Interrupting Options:
Minimizing Decision Costs via Temporal
Commitment and Low-Level Interrupt”

11:40-12:20pm **Sam Gershman**: “Using Video Games to Reverse
Engineer Human Intelligence”

Career Mentoring Lunch for Trainees

12:45-2:00pm (*advance RSVP required*)
Michigan League building, 2nd floor,
Michigan Room; **Others**: lunch on your own

Session 6 (2:30-4:30pm)

2:30-3:10pm **Jan Peters**: “Reinforcement Learning of Robot
Skills: From Policy Gradients to Divergence-based
Policy Search”

3:10-3:30pm **Ross Otto; Johannes Eichstaedt**: “The Interplay
between Prediction Errors, Twitter Mood, and
Real-World Gambling”

3:30-3:50pm **Max Kleiman-Weiner; Mark Ho; Joseph Auster-
weil; Michael Littman; Joshua Tenenbaum**:
“Learning to Cooperate and Compete”

3:50-4:30pm **Ece Kamar**: “Directions in Hybrid Intelligence:
Complementing AI Systems with Human
Intelligence”

Spotlights Session 2 (4:30-4:40pm)

Harrison Ritz; Matt Nassar; Michael Frank; Amitai Shenhav:
“A PID model of feedback-controlled decision-making in dynamic
environments”

Herke van Hoof; Jan Peters: “Generalized Exploration in Policy
Search”

**Michael Pereira; Christian K. Machens; Rui M. Costa; Thomas
Akam**: “A novel navigation task for studying route planning in
rodents”

**Niranjani Prasad; Li-Fang Cheng; Corey Chivers; Michael
Draugelis; Barbara E. Engelhardt**: “A Reinforcement Learning
Approach to Weaning of Mechanical Ventilation in Intensive Care
Units”

**Vanessa M Brown; Jacob Lee; Brooks King-Casas; Pearl H
Chiu**: “Training Reinforcement Learning”

Poster Session 2 (*Rackham Fourth Floor*)

4:40-7:40pm Refreshments and snacks.

Wednesday June 14, 2017
(Rackham Auditorium)

7:30-8:30am *Breakfast (Rackham Lobby)*

Session 7 (8:30-10:30am)

8:30-9:10am **Elizabeth Phelps**

9:10-9:50am **Volodymyr Mnih**: "Faster and More Data-Efficient Deep Reinforcement Learning"

9:50-10:30am **Leah Somerville**: "Neurodevelopment and adolescent motivation x control interactions"

10:30-11:00am *Coffee/tea break (Rackham Lobby)*

Session 8 (11:00am-1:00pm)

11:00-11:40am **Lihong Li**: "Deep Reinforcement Learning for Conversational Systems"

11:40-12:20pm **Kent Berridge**: "Desire Beyond Reinforcement Learning"

12:20-1:00pm **Ron Parr**

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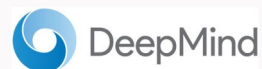
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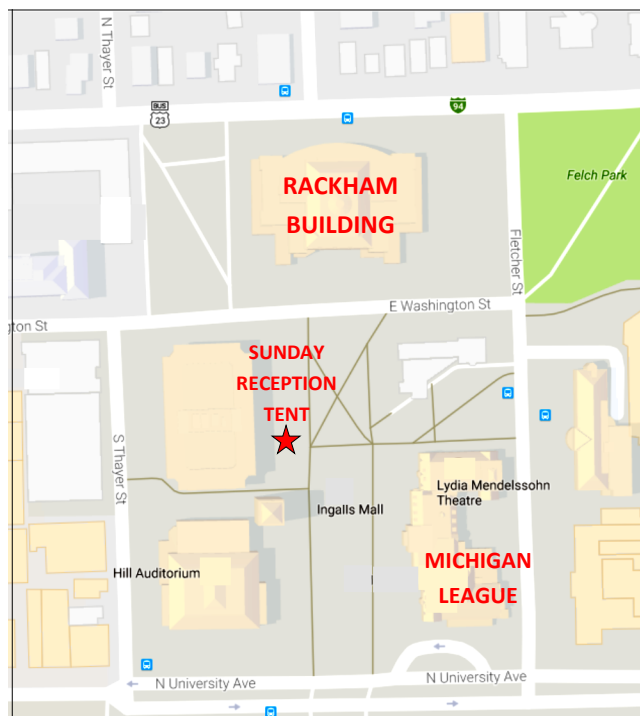
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RLDM 2017

3rd Multidisciplinary Conference on
Reinforcement Learning and Decision Making

June 11-14, 2017

The University of Michigan
Ann Arbor, Michigan, USA

