

# Wed Dec 5th

## Reproducible, Reusable, and Robust Reinforcement Learning

Wed Dec 5th 08:30 – 09:20 AM @ Rooms 220 CDE  
Invited Talk (Posner Lecture) – In Wed Invited Talk 1  
Joelle Pineau

## Coffee Break

Wed Dec 5th 09:20 – 09:45 AM @  
Break –

# In Wed Track 1 – Session 1

**Wed Dec 5th 09:45 – 09:50 AM @ Room 220 CD – Wed Dec 5th 10:40 – 10:45 AM @ Room 220 CD**

A Smoothed Analysis of the Greedy Algorithm for the Linear Contextual Bandit Problem

Wed Dec 5th 09:45 – 09:50 AM @ Room 220 CD  
Spotlight – In Wed Track 1 – Session 1  
Sampath Kannan · Jamie Morgenstern · Aaron Roth · Bo Waggoner · Zhiwei Steven Wu  
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #159

Almost Optimal Algorithms for Linear Stochastic Bandits with Heavy-Tailed Payoffs

Wed Dec 5th 09:50 – 09:55 AM @ Room 220 CD  
Spotlight – In Wed Track 1 – Session 1  
Han Shao · Xiaotian Yu · Irwin King · Michael Lyu  
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #158

End-to-End Differentiable Physics for Learning and Control

Wed Dec 5th 09:55 – 10:00 AM @ Room 220 CD  
Spotlight – In Wed Track 1 – Session 1  
Filipe de Avila Belbute-Peres · Kevin Smith · Kelsey Allen · Josh Tenenbaum · J. Zico Kolter  
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #38

Near Optimal Exploration-Exploitation in Non-Communicating Markov Decision Processes

Wed Dec 5th 10:00 – 10:05 AM @ Room 220 CD  
Spotlight – In Wed Track 1 – Session 1  
Ronan Fruit · Matteo Pirota · Alessandro Lazaric  
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #161

Exploration in Structured Reinforcement Learning

Wed Dec 5th 10:05 – 10:20 AM @ Room 220 CD  
Oral – In Wed Track 1 – Session 1  
Jungseul Ok · Alexandre Proutiere · Damianos Tranos  
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #160

Acceleration through Optimistic No-Regret Dynamics

Wed Dec 5th 10:20 – 10:25 AM @ Room 220 CD  
Spotlight – In Wed Track 1 – Session 1  
Jun-Kun Wang · Jacob Abernethy  
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #156

On Oracle-Efficient PAC RL with Rich Observations

Wed Dec 5th 10:25 – 10:30 AM @ Room 220 CD  
Spotlight – In Wed Track 1 – Session 1  
Christoph Dann · Nan Jiang · Akshay Krishnamurthy · Alekh Agarwal · John Langford · Robert Schapire  
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #111

Constant Regret, Generalized Mixability, and Mirror Descent

Wed Dec 5th 10:30 – 10:35 AM @ Room 220 CD  
Spotlight – In Wed Track 1 – Session 1  
Zakaria Mhammedi · Robert Williamson  
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #96

Efficient Online Portfolio with Logarithmic Regret

Wed Dec 5th 10:35 – 10:40 AM @ Room 220 CD  
Spotlight – In Wed Track 1 – Session 1  
Haipeng Luo · Chen-Yu Wei · Kai Zheng  
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #157

Solving Large Sequential Games with the Excessive Gap Technique

Wed Dec 5th 10:40 – 10:45 AM @ Room 220 CD  
Spotlight – In Wed Track 1 – Session 1  
Christian Kroer · Gabriele Farina · Tuomas Sandholm  
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #77

# In Wed Track 2 – Session 1

**Wed Dec 5th 09:45 – 09:50 AM @ Room 220 E – Wed Dec 5th 10:40 – 10:45 AM @ Room 220 E**

Deep Network for the Integrated 3D Sensing of Multiple People in Natural Images

Wed Dec 5th 09:45 – 09:50 AM @ Room 220 E  
Spotlight – In Wed Track 2 – Session 1  
Andrei Zanfir · Elisabeta Marinoiu · Mihai Zanfir · Alin-Ionut Popa · Cristian Sminchisescu  
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #120

Delta-encoder: an effective sample synthesis method for few-shot object recognition

Wed Dec 5th 09:50 – 09:55 AM @ Room 220 E  
Spotlight – In Wed Track 2 – Session 1  
Eli Schwartz · Leonid Karlinsky · Joseph Shtok · Sivan Harary · Mattias Marder · Abhishek Kumar · Rogerio Feris · Raja Giryes · Alex Bronstein  
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #25

Text-Adaptive Generative Adversarial Networks: Manipulating Images with Natural Language

Wed Dec 5th 09:55 – 10:00 AM @ Room 220 E  
Spotlight – In Wed Track 2 – Session 1  
Seonghyeon Nam · Yunji Kim · Seon Joo Kim  
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #126

Neighbourhood Consensus Networks

Wed Dec 5th 10:00 – 10:05 AM @ Room 220 E  
Spotlight – In Wed Track 2 – Session 1  
Ignacio Rocco · Mircea Cimpoi · Relja Arandjelovi? · Akihiko Torii · Tomas Pajdla · Josef Sivic  
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #118

Visual Memory for Robust Path Following

Wed Dec 5th 10:05 – 10:20 AM @ Room 220 E  
Oral – In Wed Track 2 – Session 1  
Ashish Kumar · Saurabh Gupta · David Fouhey · Sergey Levine · Jitendra Malik  
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #122

Recurrent Transformer Networks for Semantic Correspondence

Wed Dec 5th 10:20 – 10:25 AM @ Room 220 E  
Spotlight – In Wed Track 2 – Session 1  
Seungryong Kim · Stephen Lin · SANG RYUL JEON · Dongbo Min · Kwanghoon Sohn  
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #119

**Sequential Attend, Infer, Repeat: Generative Modelling of Moving Objects**

Wed Dec 5th 10:25 – 10:30 AM @ Room 220 E  
 Spotlight – In Wed Track 2 – Session 1  
 Adam Kosioerek · Hyunjik Kim · Yee Whye Teh · Ingmar Posner  
 Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB  
 #24

**Sanity Checks for Saliency Maps**

Wed Dec 5th 10:30 – 10:35 AM @ Room 220 E  
 Spotlight – In Wed Track 2 – Session 1  
 Julius Adebayo · Justin Gilmer · Michael Muelly · Ian Goodfellow · Moritz Hardt · Been Kim  
 Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB  
 #30

**A Probabilistic U-Net for Segmentation of Ambiguous Images**

Wed Dec 5th 10:35 – 10:40 AM @ Room 220 E  
 Spotlight – In Wed Track 2 – Session 1  
 Simon Kohl · Bernardino Romera-Paredes · Clemens Meyer · Jeffrey De Fauw · Joseph R. Ledsam · Klaus Maier-Hein · S. M. Ali Eslami · Danilo Jimenez Rezende · Olaf Ronneberger  
 Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB  
 #127

**Virtual Class Enhanced Discriminative Embedding Learning**

Wed Dec 5th 10:40 – 10:45 AM @ Room 220 E  
 Spotlight – In Wed Track 2 – Session 1  
 Binghui Chen · Weihong Deng · Haifeng Shen  
 Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB  
 #130

## In Wed Track 3 – Session 1

**Wed Dec 5th 09:45 – 09:50 AM @ Room 517 CD – Wed Dec 5th 10:40 – 10:45 AM @ Room 517 CD**

Revisiting  $\epsilon$ - $\gamma$ - $\tau$ -similarity learning for domain adaptation

Wed Dec 5th 09:45 – 09:50 AM @ Room 517 CD  
 Spotlight – In Wed Track 3 – Session 1  
 Sofiane Dhoub · Ievgen Redko  
 Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB  
 #152

**Leveraged volume sampling for linear regression**

Wed Dec 5th 09:50 – 09:55 AM @ Room 517 CD  
 Spotlight – In Wed Track 3 – Session 1  
 Michal Dereziński · Manfred Warmuth · Daniel Hsu  
 Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB  
 #151

**Synthesize Policies for Transfer and Adaptation across Tasks and Environments**

Wed Dec 5th 09:55 – 10:00 AM @ Room 517 CD  
 Spotlight – In Wed Track 3 – Session 1  
 Hexiang Hu · Liyu Chen · Boqing Gong · Fei Sha  
 Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB  
 #155

**Sublinear Time Low-Rank Approximation of Distance Matrices**

Wed Dec 5th 10:00 – 10:05 AM @ Room 517 CD  
 Spotlight – In Wed Track 3 – Session 1  
 Ainesh Bakshi · David Woodruff  
 Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB  
 #150

**Nearly tight sample complexity bounds for learning mixtures of Gaussians via sample compression schemes**

Wed Dec 5th 10:05 – 10:20 AM @ Room 517 CD  
 Oral – In Wed Track 3 – Session 1  
 Hassan Ashtiani · Shai Ben-David · Nick Harvey · Christopher Liaw · Abbas Mehrabian · Yaniv Plan  
 Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB  
 #100

**Minimax Statistical Learning with Wasserstein distances**

Wed Dec 5th 10:20 – 10:25 AM @ Room 517 CD  
 Spotlight – In Wed Track 3 – Session 1  
 Jaeho Lee · Maxim Raginsky  
 Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB  
 #86

**Generalization Bounds for Uniformly Stable Algorithms**

Wed Dec 5th 10:25 – 10:30 AM @ Room 517 CD  
 Spotlight – In Wed Track 3 – Session 1  
 Vitaly Feldman · Jan Vondrak  
 Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB  
 #85

**A loss framework for calibrated anomaly detection**

Wed Dec 5th 10:30 – 10:35 AM @ Room 517 CD  
 Spotlight – In Wed Track 3 – Session 1  
 Aditya Menon · Robert Williamson  
 Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB  
 #110

**Sharp Bounds for Generalized Uniformity Testing**

Wed Dec 5th 10:35 – 10:40 AM @ Room 517 CD  
 Spotlight – In Wed Track 3 – Session 1  
 Ilias Diakonikolas · Daniel M. Kane · Alistair Stewart  
 Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB  
 #92

**Convex Elicitation of Continuous Properties**

Wed Dec 5th 10:40 – 10:45 AM @ Room 517 CD  
 Spotlight – In Wed Track 3 – Session 1  
 Jessica Finocchiaro · Rafael Frongillo  
 Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB  
 #73

## In Wed Demonstrations

**Wed Dec 5th 10:45 AM – 07:30 PM @ Room 510 ABCD #D7 – Wed Dec 5th 10:45 AM – 07:30 PM @ Room 510 ABCD #D6**

**Multi-Word Imputation and Sentence Expansion**

Wed Dec 5th 10:45 AM – 07:30 PM @ Room 510 ABCD #D7  
 Demonstration – In Wed Demonstrations  
 Osman Ramadan · Douglas Orr · Dmitry Stratiychuk · B?ej Czap

**Automatic Curriculum Generation Applied to Teaching Novices a Short Bach Piano Segment**

Wed Dec 5th 10:45 AM – 07:30 PM @ Room 510 ABCD #D10  
 Demonstration – In Wed Demonstrations  
 Emma Brunskill · Tong Mu · Karan Goel · Jonathan Bragg

**Riesznets: Accurate Real-Time 2D/3D Image Super-Resolution**

Wed Dec 5th 10:45 AM – 07:30 PM @ Room 510 ABCD #D4  
 Demonstration – In Wed Demonstrations  
 Saarthak Sachdeva · Mohnish Chakravarti

**Autonomous robotic manipulation with a desktop research platform**

Wed Dec 5th 10:45 AM – 07:30 PM @ Room 510 ABCD #D8  
 Demonstration – In Wed Demonstrations  
 Jonathan Long · Brandon Pereira · Max Reynolds · Rahul Rawat

**Play Imperfect Information Games against Neural Networks**

Wed Dec 5th 10:45 AM – 07:30 PM @ Room 510 ABCD #D3  
 Demonstration – In Wed Demonstrations  
 Andy C Kitchen · Michela Benedetti · Hon Weng Chong

**PatentAI: IP Infringement Detection with Enhanced Paraphrase Identification**

Wed Dec 5th 10:45 AM – 07:30 PM @ Room 510  
 Demonstration – In Wed Demonstrations  
 Youssef Drissi · Karthikeyan Natesan Ramamurthy · Prasanna Sattigeri

**BigBlueBot: A Demonstration of How to Detect Egregious Conversations with Chatbots**

Wed Dec 5th 10:45 AM – 07:30 PM @ Room 510 ABCD #D1  
 Demonstration – In Wed Demonstrations  
 Casey Dugan · Justin D Weisz · Narendra Nath Joshi · Ingrid Lange · J Johnson · Mohit Jain · Werner Geyer

**Perception, sensing, motion planning and robot control using AI for automated feeding of upper-extremity mobility impaired people**

Wed Dec 5th 10:45 AM – 07:30 PM @ Room 510 ABCD #D2  
 Demonstration – In Wed Demonstrations  
 Tapomayukh Bhattacharjee · Daniel Gallenberger · David Dubois · Siddhartha Srinivasa · Louis L'cuyer-Lapierre

**A Cooperative Visually Grounded Dialogue Game with a Humanoid Robot**

Wed Dec 5th 10:45 AM – 07:30 PM @ Room 510 ABCD #D9  
 Demonstration – In Wed Demonstrations  
 Jordan Prince Tremblay · Ismael Balafrej · Felix Labelle · Felix Martel-Denis · Eric Matte · Julien Chouinard-Beaupré · Adam Le-tourneau · Antoine Mercier-Nicol · Simon Brodeur · François Ferland · Jean ROUAT

**Deep Reinforcement Learning for Online Order Dispatching and Driver Repositioning in Ride-sharing**

Wed Dec 5th 10:45 AM – 07:30 PM @ Room 510 ABCD #D6  
 Demonstration – In Wed Demonstrations  
 Zhiwei Qin · Xiaocheng Tang · Yan Jiao · Chenxi Wang

## In Wed Poster Session A

**Balanced Policy Evaluation and Learning**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #1  
 Poster – In Wed Poster Session A  
 Nathan Kallus

**Exponentiated Strongly Rayleigh Distributions**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #2  
 Poster – In Wed Poster Session A  
 Zelda Mariet · Suvrit Sra · Stefanie Jegelka

**Parsimonious Bayesian deep networks**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #3  
 Poster – In Wed Poster Session A  
 Mingyuan Zhou

**Stein Variational Gradient Descent as Moment Matching**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #4  
 Poster – In Wed Poster Session A  
 Qiang Liu · Dilin Wang

**Hamiltonian Variational Auto-Encoder**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #5  
 Poster – In Wed Poster Session A  
 Anthony L Caterini · Arnaud Doucet · Dino Sejdinovic

**Predictive Approximate Bayesian Computation via Saddle Points**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #6  
 Poster – In Wed Poster Session A  
 Yingxiang Yang · Bo Dai · Negar Kiyavash · Niao He

**Importance Weighting and Variational Inference**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #7  
 Poster – In Wed Poster Session A  
 Justin Domke · Daniel Sheldon

**Orthogonally Decoupled Variational Gaussian Processes**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #8  
 Poster – In Wed Poster Session A  
 Hugh Salimbeni · Ching-An Cheng · Byron Boots · Marc Deisenroth

**ATOMO: Communication-efficient Learning via Atomic Sparsification**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #9  
 Poster – In Wed Poster Session A  
 Hongyi Wang · Scott Sievert · Shengchao Liu · Zachary Charles · Dimitris Papailiopoulos · Stephen Wright

**Sparsified SGD with Memory**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #10  
 Poster – In Wed Poster Session A  
 Sebastian Stich · Jean-Baptiste Cordonnier · Martin Jaggi

**SEGA: Variance Reduction via Gradient Sketching**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #11  
 Poster – In Wed Poster Session A  
 Filip Hanzely · Konstantin Mishchenko · Peter Richtarik

**Non-monotone Submodular Maximization in Exponentially Fewer Iterations**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #12  
 Poster – In Wed Poster Session A  
 Eric Balkanski · Adam Breuer · Yaron Singer

**Stochastic Primal-Dual Method for Empirical Risk Minimization with  $O(1)$  Per-Iteration Complexity**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #13  
 Poster – In Wed Poster Session A  
 Conghui Tan · Tong Zhang · Shiqian Ma · Ji Liu

**Rest-Katyusha: Exploiting the Solution's Structure via Scheduled Restart Schemes**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #14  
 Poster – In Wed Poster Session A  
 Junqi Tang · Mohammad Golbabaee · Francis Bach · Mike E Davies

**Inexact trust-region algorithms on Riemannian manifolds**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #15  
 Poster – In Wed Poster Session A  
 Hiroyuki Kasai · Bamdev Mishra

**On Markov Chain Gradient Descent**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #16  
 Poster – In Wed Poster Session A  
 Tao Sun · Yuejiao Sun · Wotao Yin

**Gradient Descent Meets Shift-and-Invert Preconditioning for Eigenvector Computation**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #17  
 Poster – In Wed Poster Session A  
 Zhiqiang Xu

**Global Non-convex Optimization with Discretized Diffusions**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #18  
 Poster – In Wed Poster Session A  
 Murat A Erdogdu · Lester Mackey · Ohad Shamir

**A theory on the absence of spurious solutions for nonconvex and nonsmooth optimization**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #19  
 Poster – In Wed Poster Session A  
 Cedric Jozs · Yi Ouyang · Richard Zhang · Javad Lavaei · Somayeh Sojoudi

**The Limit Points of (Optimistic) Gradient Descent in Min-Max Optimization**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #20  
Poster – In Wed Poster Session A  
Constantinos Daskalakis · Ioannis Panageas

**Porcupine Neural Networks: Approximating Neural Network Landscapes**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #21  
Poster – In Wed Poster Session A  
Soheil Feizi · Hamid Javadi · Jesse Zhang · David Tse

**Adding One Neuron Can Eliminate All Bad Local Minima**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #22  
Poster – In Wed Poster Session A  
SHIYU LIANG · Ruoyu Sun · Jason Lee · R. Srikant

**Improving Explorability in Variational Inference with Annealed Variational Objectives**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #23  
Poster – In Wed Poster Session A  
Chin-Wei Huang · Shawn Tan · Alexandre Lacoste · Aaron Courville

**Sequential Attend, Infer, Repeat: Generative Modelling of Moving Objects**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #24  
Poster – In Wed Poster Session A  
Adam Kosior · Hyunjik Kim · Yee Whye Teh · Ingmar Posner

**Delta-encoder: an effective sample synthesis method for few-shot object recognition**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #25  
Poster – In Wed Poster Session A  
Eli Schwartz · Leonid Karlinsky · Joseph Shtok · Sivan Harary · Mattias Marder · Abhishek Kumar · Rogerio Feris · Raja Giryes · Alex Bronstein

**Joint Active Feature Acquisition and Classification with Variable-Size Set Encoding**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #26  
Poster – In Wed Poster Session A  
Hajin Shim · Sung Ju Hwang · Eunho Yang

**PCA of high dimensional random walks with comparison to neural network training**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #27  
Poster – In Wed Poster Session A  
Joseph Antognini · Jascha Sohl-Dickstein

**Insights on representational similarity in neural networks with canonical correlation**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #28  
Poster – In Wed Poster Session A  
Ari Morcos · Maithra Raghu · Samy Bengio

**Adversarial vulnerability for any classifier**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #29  
Poster – In Wed Poster Session A  
Alhussein Fawzi · Hamza Fawzi · Omar Fawzi

**Sanity Checks for Saliency Maps**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #30  
Poster – In Wed Poster Session A  
Julius Adebayo · Justin Gilmer · Michael Muelly · Ian Goodfellow · Moritz Hardt · Been Kim

**MetaGAN: An Adversarial Approach to Few-Shot Learning**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #31

Poster – In Wed Poster Session A  
Ruixiang ZHANG · Tong Che · Zoubin Ghahramani · Yoshua Bengio · Yangqiu Song

**Deep Generative Models with Learnable Knowledge Constraints**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #32  
Poster – In Wed Poster Session A  
Zhiting Hu · Zichao Yang · Ruslan Salakhutdinov · LIANHUI Qin · Xiaodan Liang · Haoye Dong · Eric Xing

**Learning Attractor Dynamics for Generative Memory**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #33  
Poster – In Wed Poster Session A  
Yan Wu · Gregory Wayne · Karol Gregor · Timothy Lillicrap

**Fast deep reinforcement learning using online adjustments from the past**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #34  
Poster – In Wed Poster Session A  
Steven Hansen · Alexander Pritzel · Pablo Sprechmann · Andre Barreto · Charles Blundell

**Blockwise Parallel Decoding for Deep Autoregressive Models**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #35  
Poster – In Wed Poster Session A  
Mitchell Stern · Noam Shazeer · Jakob Uszkoreit

**Automatic Program Synthesis of Long Programs with a Learned Garbage Collector**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #36  
Poster – In Wed Poster Session A  
Amit Zohar · Lior Wolf

**The Global Anchor Method for Quantifying Linguistic Shifts and Domain Adaptation**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #37  
Poster – In Wed Poster Session A  
Zi Yin · Vin Sachidananda · Balaji Prabhakar

**End-to-End Differentiable Physics for Learning and Control**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #38  
Poster – In Wed Poster Session A  
Filipe de Avila Belbute-Peres · Kevin Smith · Kelsey Allen · Josh Tenenbaum · J. Zico Kolter

**Neural Arithmetic Logic Units**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #39  
Poster – In Wed Poster Session A  
Andrew Trask · Felix Hill · Scott Reed · Jack Rae · Chris Dyer · Phil Blunsom

**Reinforced Continual Learning**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #40  
Poster – In Wed Poster Session A  
Ju Xu · Zhanxing Zhu

**Poison Frogs! Targeted Clean-Label Poisoning Attacks on Neural Networks**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #41  
Poster – In Wed Poster Session A  
Ali Shafahi · W. Ronny Huang · Mahyar Najibi · Octavian Suciu · Christoph Studer · Tudor Dumitras · Tom Goldstein

**Generalizing to Unseen Domains via Adversarial Data Augmentation**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #42  
Poster – In Wed Poster Session A  
Riccardo Volpi · Hongseok Namkoong · Ozan Sener · John Duchi · Vittorio Murino · Silvio Savarese

**On the Local Hessian in Back-propagation**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #43  
Poster – In Wed Poster Session A  
Huishuai Zhang · Wei Chen · Tie-Yan Liu

Lipschitz-Margin Training: Scalable Certification of  
Perturbation Invariance for Deep Neural Networks

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #44  
Poster – In Wed Poster Session A  
Yusuke Tsuzuku · Issei Sato · Masashi Sugiyama

Tangent: Automatic differentiation using source-code  
transformation for dynamically typed array programming

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #45  
Poster – In Wed Poster Session A  
Bart van Merriënboer · Dan Moldovan · Alexander Wiltchko

Simple, Distributed, and Accelerated Probabilistic Programming

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #46  
Poster – In Wed Poster Session A  
Dustin Tran · Matthew Hoffman · Dave Moore · Christopher Suter  
· Srinivas Vasudevan · Alexey Radul · Matthew Johnson · Rif A.  
Saurous

Power-law efficient neural codes provide general link between  
perceptual bias and discriminability

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #47  
Poster – In Wed Poster Session A  
Michael Morais · Jonathan W Pillow

DropBlock: A regularization method for convolutional networks

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #48  
Poster – In Wed Poster Session A  
Golnaz Ghiasi · Tsung-Yi Lin · Quoc V Le

Learning sparse neural networks via sensitivity-driven  
regularization

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #49  
Poster – In Wed Poster Session A  
Enzo Tartaglione · Skjalg Leps?y · Attilio Fiandrotti · Gianluca  
Francini

Critical initialisation for deep signal propagation in noisy  
rectifier neural networks

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #50  
Poster – In Wed Poster Session A  
Arnu Pretorius · Elan van Biljon · Steve Kroon · Herman Kamper

The streaming rollout of deep networks - towards fully  
model-parallel execution

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #51  
Poster – In Wed Poster Session A  
Volker Fischer · Jan Koehler · Thomas Pfeil

The Spectrum of the Fisher Information Matrix of a  
Single-Hidden-Layer Neural Network

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #52  
Poster – In Wed Poster Session A  
Jeffrey Pennington · Pratik Worah

Learning Optimal Reserve Price against Non-myopic Bidders

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #53  
Poster – In Wed Poster Session A  
Jinyan Liu · Zhiyi Huang · Xiangning Wang

Beyond Log-concavity: Provable Guarantees for Sampling  
Multi-modal Distributions using Simulated Tempering Langevin  
Monte Carlo

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #54  
Poster – In Wed Poster Session A  
HOLDEN LEE · Andrej Risteski · Rong Ge

On Binary Classification in Extreme Regions

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #55  
Poster – In Wed Poster Session A  
Hamid JALALZAI · Stephan Cl?men?on · Anne Sabourin

PAC-Bayes bounds for stable algorithms with instance-dependent  
priors

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #56  
Poster – In Wed Poster Session A  
Omar Rivasplata · Csaba Szepesvari · John Shawe-Taylor · Emilio  
Parrado-Hernandez · Shiliang Sun

Improved Algorithms for Collaborative PAC Learning

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #57  
Poster – In Wed Poster Session A  
Huy Nguyen · Lydia Zakyntinou

Data Amplification: A Unified and Competitive Approach to  
Property Estimation

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #58  
Poster – In Wed Poster Session A  
Yi HAO · Alon Orlitsky · Ananda Theertha Suresh · Yihong Wu

Mean-field theory of graph neural networks in graph  
partitioning

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #59  
Poster – In Wed Poster Session A  
Tatsuro Kawamoto · Masashi Tsubaki · Tomoyuki Obuchi

Statistical mechanics of low-rank tensor decomposition

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #60  
Poster – In Wed Poster Session A  
Jonathan Kadmon · Surya Ganguli

Plug-in Estimation in High-Dimensional Linear Inverse  
Problems: A Rigorous Analysis

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #61  
Poster – In Wed Poster Session A  
Alyson Fletcher · Parthe Pandit · Sundeep Rangan · Subrata Sarkar  
· Philip Schniter

The Description Length of Deep Learning models

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #62  
Poster – In Wed Poster Session A  
L?onard Blier · Yann Ollivier

Deepcode: Feedback Codes via Deep Learning

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #63  
Poster – In Wed Poster Session A  
Hyeji Kim · Yihan Jiang · Sreeram Kannan · Sewoong Oh · Pramod  
Viswanath

Binary Rating Estimation with Graph Side Information

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #64  
Poster – In Wed Poster Session A  
Kwangjun Ahn · Kangwook Lee · Hyunseung Cha · Changho Suh

Optimization of Smooth Functions with Noisy Observations:  
Local Minimax Rates

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #65  
Poster – In Wed Poster Session A  
Yining Wang · Sivaraman Balakrishnan · Aarti Singh

Parameters as interacting particles: long time convergence and  
asymptotic error scaling of neural networks

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #66  
Poster – In Wed Poster Session A  
Grant Rotskoff · Eric Vanden-Eijnden

**Towards Understanding Acceleration Tradeoff between Momentum and Asynchrony in Nonconvex Stochastic Optimization**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #67  
Poster – In Wed Poster Session A  
Tianyi Liu · Shiyang Li · Jianping Shi · Enlu Zhou · Tuo Zhao

**Asymptotic optimality of adaptive importance sampling**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #68  
Poster – In Wed Poster Session A  
François Portier · Bernard Delyon

**Inference Aided Reinforcement Learning for Incentive Mechanism Design in Crowdsourcing**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #69  
Poster – In Wed Poster Session A  
Zehong Hu · Yitao Liang · Jie Zhang · Zhao Li · Yang Liu

**A Game-Theoretic Approach to Recommendation Systems with Strategic Content Providers**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #70  
Poster – In Wed Poster Session A  
Omer Ben-Porat · Moshe Tennenholtz

**A Mathematical Model For Optimal Decisions In A Representative Democracy**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #71  
Poster – In Wed Poster Session A  
Malik Magdon-Ismail · Lirong Xia

**Universal Growth in Production Economies**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #72  
Poster – In Wed Poster Session A  
Simina Branzei · Ruta Mehta · Noam Nisan

**Convex Elicitation of Continuous Properties**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #73  
Poster – In Wed Poster Session A  
Jessica Finocchiaro · Rafael Frongillo

**Contextual Pricing for Lipschitz Buyers**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #74  
Poster – In Wed Poster Session A  
Jieming Mao · Renato Leme · Jon Schneider

**Learning in Games with Lossy Feedback**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #75  
Poster – In Wed Poster Session A  
Zhengyuan Zhou · Panayotis Mertikopoulos · Susan Athey · Nicholas Bambos · Peter W Glynn · Yinyu Ye

**Multiplicative Weights Updates with Constant Step-Size in Graphical Constant-Sum Games**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #76  
Poster – In Wed Poster Session A  
Yun Kuen Cheung

**Solving Large Sequential Games with the Excessive Gap Technique**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #77  
Poster – In Wed Poster Session A  
Christian Kroer · Gabriele Farina · Tuomas Sandholm

**Practical exact algorithm for trembling-hand equilibrium refinements in games**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #78  
Poster – In Wed Poster Session A  
Gabriele Farina · Nicola Gatti · Tuomas Sandholm

**Improving Online Algorithms via ML Predictions**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #79  
Poster – In Wed Poster Session A  
Manish Purohit · Zoya Svitkina · Ravi Kumar

**Variance-Reduced Stochastic Gradient Descent on Streaming Data**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #80  
Poster – In Wed Poster Session A  
Ellango Jothimurugesan · Ashraf Tahmasbi · Phillip Gibbons · Srikanta Tirthapura

**Regret Bounds for Robust Adaptive Control of the Linear Quadratic Regulator**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #81  
Poster – In Wed Poster Session A  
Sarah Dean · Horia Mania · Nikolai Matni · Benjamin Recht · Stephen Tu

**PAC-learning in the presence of adversaries**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #82  
Poster – In Wed Poster Session A  
Daniel Cullina · Arjun Nitin Bhagoji · Prateek Mittal

**Tight Bounds for Collaborative PAC Learning via Multiplicative Weights**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #83  
Poster – In Wed Poster Session A  
Jiecao Chen · Qin Zhang · Yuan Zhou

**Understanding Weight Normalized Deep Neural Networks with Rectified Linear Units**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #84  
Poster – In Wed Poster Session A  
Yixi Xu · Xiao Wang

**Generalization Bounds for Uniformly Stable Algorithms**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #85  
Poster – In Wed Poster Session A  
Vitaly Feldman · Jan Vondrak

**Minimax Statistical Learning with Wasserstein distances**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #86  
Poster – In Wed Poster Session A  
Jaeho Lee · Maxim Raginsky

**Differentially Private Uniformly Most Powerful Tests for Binomial Data**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #87  
Poster – In Wed Poster Session A  
Jordan Awan · Aleksandra Slavkovi?

**Sketching Method for Large Scale Combinatorial Inference**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #88  
Poster – In Wed Poster Session A  
Wei Sun · Junwei Lu · Han Liu

**An Improved Analysis of Alternating Minimization for Structured Multi-Response Regression**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #89  
Poster – In Wed Poster Session A  
Sheng Chen · Arindam Banerjee

**MixLasso: Generalized Mixed Regression via Convex Atomic-Norm Regularization**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #90  
Poster – In Wed Poster Session A  
Ian En-Hsu Yen · Wei-Cheng Lee · Kai Zhong · Sung-En Chang · Pradeep Ravikumar · Shou-De Lin

**A Theory-Based Evaluation of Nearest Neighbor Models Put Into Practice**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #91  
Poster – In Wed Poster Session A  
Hendrik Fichtenberger · Dennis Rohde

#### Sharp Bounds for Generalized Uniformity Testing

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #92  
Poster – In Wed Poster Session A  
Ilias Diakonikolas · Daniel M. Kane · Alistair Stewart

#### Testing for Families of Distributions via the Fourier Transform

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #93  
Poster – In Wed Poster Session A  
Alistair Stewart · Ilias Diakonikolas · Clement Canonne

#### High Dimensional Linear Regression using Lattice Basis Reduction

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #94  
Poster – In Wed Poster Session A  
Ilias Zadik · David Gamarnik

#### $\ell_1$ -regression with Heavy-tailed Distributions

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #95  
Poster – In Wed Poster Session A  
Lijun Zhang · Zhi-Hua Zhou

#### Constant Regret, Generalized Mixability, and Mirror Descent

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #96  
Poster – In Wed Poster Session A  
Zakaria Mhammedi · Robert Williamson

#### Stochastic Composite Mirror Descent: Optimal Bounds with High Probabilities

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #97  
Poster – In Wed Poster Session A  
Yunwen Lei · Ke Tang

#### Uniform Convergence of Gradients for Non-Convex Learning and Optimization

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #98  
Poster – In Wed Poster Session A  
Dylan Foster · Ayush Sekhari · Karthik Sridharan

#### Fast Rates of ERM and Stochastic Approximation: Adaptive to Error Bound Conditions

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #99  
Poster – In Wed Poster Session A  
Mingrui Liu · Xiaoxuan Zhang · Lijun Zhang · Jing Rong · Tianbao Yang

#### Nearly tight sample complexity bounds for learning mixtures of Gaussians via sample compression schemes

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #100  
Poster – In Wed Poster Session A  
Hassan Ashtiani · Shai Ben-David · Nicholas Harvey · Christopher Liaw · Abbas Mehrabian · Yaniv Plan

#### Early Stopping for Nonparametric Testing

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #101  
Poster – In Wed Poster Session A  
Meimei Liu · Guang Cheng

#### Chaining Mutual Information and Tightening Generalization Bounds

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #102  
Poster – In Wed Poster Session A  
Amir Asadi · Emmanuel Abbe · Sergio Verdu

#### Dimensionality Reduction has Quantifiable Imperfections: Two Geometric Bounds

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #103  
Poster – In Wed Poster Session A  
Yik Chau (Kry) Lui · Gavin Weiguang Ding · Ruitong Huang · Robert McCann

#### Minimax Estimation of Neural Net Distance

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #104  
Poster – In Wed Poster Session A  
Kaiyi Ji · Yingbin Liang

#### Quantifying Learning Guarantees for Convex but Inconsistent Surrogates

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #105  
Poster – In Wed Poster Session A  
Kirill Struminsky · Simon Lacoste-Julien · Anton Osokin

#### Learning Signed Determinantal Point Processes through the Principal Minor Assignment Problem

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #106  
Poster – In Wed Poster Session A  
Victor-Emmanuel Brunel

#### Data-dependent PAC-Bayes priors via differential privacy

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #107  
Poster – In Wed Poster Session A  
Gintare Karolina Dziugaite · Daniel Roy

#### Computationally and statistically efficient learning of causal Bayes nets using path queries

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #108  
Poster – In Wed Poster Session A  
Kevin Bello · Jean Honorio

#### PAC-Bayes Tree: weighted subtrees with guarantees

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #109  
Poster – In Wed Poster Session A  
Tin D Nguyen · Samory Kpotufe

#### A loss framework for calibrated anomaly detection

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #110  
Poster – In Wed Poster Session A  
Aditya Menon · Robert Williamson

#### On Oracle-Efficient PAC RL with Rich Observations

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #111  
Poster – In Wed Poster Session A  
Christoph Dann · Nan Jiang · Akshay Krishnamurthy · Alekh Agarwal · John Langford · Robert Schapire

#### Adversarial Risk and Robustness: General Definitions and Implications for the Uniform Distribution

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #112  
Poster – In Wed Poster Session A  
Dimitrios Diochnos · Saeed Mahloujifar · Mohammad Mahmoody

#### Learning from discriminative feature feedback

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #113  
Poster – In Wed Poster Session A  
Sanjoy Dasgupta · Sivan Sabato · Nicholas Roberts · Akansha Dey

#### How to Start Training: The Effect of Initialization and Architecture

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #114  
Poster – In Wed Poster Session A  
Boris Hanin · David Rolnick

#### Bilevel Distance Metric Learning for Robust Image Recognition

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #115  
Poster – In Wed Poster Session A  
Jie Xu · Lei Luo · Cheng Deng · Heng Huang

**Deep Non-Blind Deconvolution via Generalized Low-Rank Approximation**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #116  
 Poster – In Wed Poster Session A  
 Wenqi Ren · Jiawei Zhang · Lin Ma · Jinshan Pan · Xiaochun Cao · Wangmeng Zuo · Wei Liu · Ming-Hsuan Yang

**Unsupervised Depth Estimation, 3D Face Rotation and Replacement**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #117  
 Poster – In Wed Poster Session A  
 Joel Ruben Antony Moniz · Christopher Beckham · Simon Rajotte · Sina Honari · Chris Pal

**Neighbourhood Consensus Networks**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #118  
 Poster – In Wed Poster Session A  
 Ignacio Rocco · Mircea Cimpoi · Relja Arandjelovi? · Akihiko Torii · Tomas Pajdla · Josef Sivic

**Recurrent Transformer Networks for Semantic Correspondence**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #119  
 Poster – In Wed Poster Session A  
 Seungryong Kim · Stephen Lin · SANG RYUL JEON · Dongbo Min · Kwanghoon Sohn

**Deep Network for the Integrated 3D Sensing of Multiple People in Natural Images**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #120  
 Poster – In Wed Poster Session A  
 Andrei Zanfir · Elisabeta Maroiu · Mihai Zanfir · Alin-Ionut Popa · Cristian Sminchisescu

**A Neural Compositional Paradigm for Image Captioning**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #121  
 Poster – In Wed Poster Session A  
 Bo Dai · Sanja Fidler · Dahua Lin

**Visual Memory for Robust Path Following**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #122  
 Poster – In Wed Poster Session A  
 Ashish Kumar · Saurabh Gupta · David Fouhey · Sergey Levine · Jitendra Malik

**Learning to Exploit Stability for 3D Scene Parsing**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #123  
 Poster – In Wed Poster Session A  
 Yilun Du · Zhijian Liu · Hector Basevi · Ales Leonardis · Bill Freeman · Josh Tenenbaum · Jiajun Wu

**Learning to Decompose and Disentangle Representations for Video Prediction**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #124  
 Poster – In Wed Poster Session A  
 Jun-Ting Hsieh · Bingbin Liu · De-An Huang · Li Fei-Fei · Juan Carlos Niebles

**Weakly Supervised Dense Event Captioning in Videos**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #125  
 Poster – In Wed Poster Session A  
 Xuguang Duan · Wenbing Huang · Chuang Gan · Jingdong Wang · Wenwu Zhu · Junzhou Huang

**Text-Adaptive Generative Adversarial Networks: Manipulating Images with Natural Language**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #126  
 Poster – In Wed Poster Session A  
 Seonghyeon Nam · Yunji Kim · Seon Joo Kim

**A Probabilistic U-Net for Segmentation of Ambiguous Images**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #127  
 Poster – In Wed Poster Session A  
 Simon Kohl · Bernardino Romera-Paredes · Clemens Meyer · Jeffrey De Fauw · Joseph R. Ledsam · Klaus Maier-Hein · S. M. Ali Eslami · Danilo Jimenez Rezende · Olaf Ronneberger

**Forward Modeling for Partial Observation Strategy Games - A StarCraft Defogger**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #128  
 Poster – In Wed Poster Session A  
 Gabriel Synnaeve · Zeming Lin · Jonas Gehring · Dan Gant · Vegard Mella · Vasil Khalidov · Nicolas Carion · Nicolas Usunier

**Adversarial Text Generation via Feature-Mover’s Distance**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #129  
 Poster – In Wed Poster Session A  
 Liquan Chen · Shuyang Dai · Chenyang Tao · Haichao Zhang · Zhe Gan · Dinghan Shen · Yizhe Zhang · Guoyin Wang · Ruiyi Zhang · Lawrence Carin

**Virtual Class Enhanced Discriminative Embedding Learning**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #130  
 Poster – In Wed Poster Session A  
 Binghui Chen · Weihong Deng · Haifeng Shen

**Learning Pipelines with Limited Data and Domain Knowledge: A Study in Parsing Physics Problems**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #131  
 Poster – In Wed Poster Session A  
 Mrinmaya Sachan · Kumar Avinava Dubey · Tom Mitchell · Dan Roth · Eric Xing

**Pipe-SGD: A Decentralized Pipelined SGD Framework for Distributed Deep Net Training**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #132  
 Poster – In Wed Poster Session A  
 Youjie Li · Mingchao Yu · Songze Li · Salman Avestimehr · Nam Sung Kim · Alexander Schwing

**MULAN: A Blind and Off-Grid Method for Multichannel Echo Retrieval**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #133  
 Poster – In Wed Poster Session A  
 Helena Peic Tukuljac · Antoine Deleforge · Remi Gribonval

**Diminishing Returns Shape Constraints for Interpretability and Regularization**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #134  
 Poster – In Wed Poster Session A  
 Maya Gupta · Dara Bahri · Andrew Cotter · Kevin Canini

**Fairness Through Computationally-Bounded Awareness**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #135  
 Poster – In Wed Poster Session A  
 Michael Kim · Omer Reingold · Guy Rothblum

**On preserving non-discrimination when combining expert advice**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #136  
 Poster – In Wed Poster Session A  
 Avrim Blum · Suriya Gunasekar · Thodoris Lykouris · Nati Srebro

**Fairness Behind a Veil of Ignorance: A Welfare Analysis for Automated Decision Making**

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #137  
 Poster – In Wed Poster Session A  
 Hoda Heidari · Claudio Ferrari · Krishna Gummadi · Andreas Krause

**Inequity aversion improves cooperation in intertemporal social dilemmas**



Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #138  
Poster – In Wed Poster Session A  
Edward Hughes · Joel Leibo · Matthew Phillips · Karl Tuyls · Edgar Dueñez-Guzman · Antonio García-Castañeda · Iain Dunning · Tina Zhu · Kevin McKee · Raphael Koster · Heather Roff · Thore Graepel

#### On Misinformation Containment in Online Social Networks

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #139  
Poster – In Wed Poster Session A  
Amo Tong · Ding-Zhu Du · Weili Wu

#### Found Graph Data and Planted Vertex Covers

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #140  
Poster – In Wed Poster Session A  
Austin Benson · Jon Kleinberg

#### Inferring Networks From Random Walk-Based Node Similarities

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #141  
Poster – In Wed Poster Session A  
Jeremy Hoskins · Cameron Musco · Christopher Musco · Babis Tsourakakis

#### Fast Greedy MAP Inference for Determinantal Point Process to Improve Recommendation Diversity

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #142  
Poster – In Wed Poster Session A  
Laming Chen · Guoxin Zhang · Eric Zhou

#### Unorganized Malicious Attacks Detection

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #143  
Poster – In Wed Poster Session A  
Ming Pang · Wei Gao · Min Tao · Zhi-Hua Zhou

#### Scalable Robust Matrix Factorization with Nonconvex Loss

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #144  
Poster – In Wed Poster Session A  
Quanming Yao · James Kwok

#### Differentially Private Robust Low-Rank Approximation

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #145  
Poster – In Wed Poster Session A  
Raman Arora · Vladimir Braverman · Jalaj Upadhyay

#### Differential Privacy for Growing Databases

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #146  
Poster – In Wed Poster Session A  
Rachel Cummings · Sara Krehbiel · Kevin A Lai · Uthaiapon Tantipongpipat

#### Efficient Neural Network Robustness Certification with General Activation Functions

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #147  
Poster – In Wed Poster Session A  
Huan Zhang · Tsui-Wei Weng · Pin-Yu Chen · Cho-Jui Hsieh · Luca Daniel

#### Spectral Signatures in Backdoor Attacks

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #148  
Poster – In Wed Poster Session A  
Brandon Tran · Jerry Li · Aleksander Madry

#### Constructing Unrestricted Adversarial Examples with Generative Models

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #149  
Poster – In Wed Poster Session A  
Yang Song · Rui Shu · Nate Kushman · Stefano Ermon

#### Sublinear Time Low-Rank Approximation of Distance Matrices

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #150  
Poster – In Wed Poster Session A  
Ainesh Bakshi · David Woodruff

#### Leveraged volume sampling for linear regression

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #151  
Poster – In Wed Poster Session A  
Michał Dereziński · Manfred Warmuth · Daniel Hsu

#### Revisiting $(\epsilon, \gamma, \tau)$ -similarity learning for domain adaptation

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #152  
Poster – In Wed Poster Session A  
Sofiane Dhoub · Ievgen Redko

#### Differential Properties of Sinkhorn Approximation for Learning with Wasserstein Distance

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #153  
Poster – In Wed Poster Session A  
Giulia Luise · Alessandro Rudi · Massimiliano Pontil · Carlo Ciliberto

#### Algorithms and Theory for Multiple-Source Adaptation

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #154  
Poster – In Wed Poster Session A  
Judy Hoffman · Mehryar Mohri · Ningshan Zhang

#### Synthesize Policies for Transfer and Adaptation across Tasks and Environments

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #155  
Poster – In Wed Poster Session A  
Hexiang Hu · Liyu Chen · Boqing Gong · Fei Sha

#### Acceleration through Optimistic No-Regret Dynamics

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #156  
Poster – In Wed Poster Session A  
Jun-Kun Wang · Jacob Abernethy

#### Efficient Online Portfolio with Logarithmic Regret

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #157  
Poster – In Wed Poster Session A  
Haipeng Luo · Chen-Yu Wei · Kai Zheng

#### Almost Optimal Algorithms for Linear Stochastic Bandits with Heavy-Tailed Payoffs

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #158  
Poster – In Wed Poster Session A  
Han Shao · Xiaotian Yu · Irwin King · Michael Lyu

#### A Smoothed Analysis of the Greedy Algorithm for the Linear Contextual Bandit Problem

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #159  
Poster – In Wed Poster Session A  
Sampath Kannan · Jamie Morgenstern · Aaron Roth · Bo Waggoner · Zhiwei Steven Wu

#### Exploration in Structured Reinforcement Learning

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #160  
Poster – In Wed Poster Session A  
Jungseul Ok · Alexandre Proutiere · Damianos Tranos

#### Near Optimal Exploration-Exploitation in Non-Communicating Markov Decision Processes

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #161  
Poster – In Wed Poster Session A  
Ronan Fruit · Matteo Pirodda · Alessandro Lazaric

#### A Block Coordinate Ascent Algorithm for Mean-Variance Optimization

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #162  
Poster – In Wed Poster Session A  
Tengyang Xie · Bo Liu · Yangyang Xu · Mohammad Ghavamzadeh  
· Yinlam Chow · Daoming Lyu · Daesub Yoon

#### Learning Safe Policies with Expert Guidance

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #163  
Poster – In Wed Poster Session A  
Jessie Huang · Fa Wu · Doina Precup · Yang Cai

#### M-Walk: Learning to Walk over Graphs using Monte Carlo Tree Search

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #164  
Poster – In Wed Poster Session A  
Yelong Shen · Jianshu Chen · Po-Sen Huang · Yuqing Guo · Jianfeng Gao

#### Is Q-Learning Provably Efficient?

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #165  
Poster – In Wed Poster Session A  
Chi Jin · Zeyuan Allen-Zhu · Sebastien Bubeck · Michael Jordan

#### Variational Inverse Control with Events: A General Framework for Data-Driven Reward Definition

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #166  
Poster – In Wed Poster Session A  
Justin Fu · Avi Singh · Dibya Ghosh · Larry Yang · Sergey Levine

#### An Off-policy Policy Gradient Theorem Using Emphatic Weightings

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #167  
Poster – In Wed Poster Session A  
Ehsan Imani · Eric Graves · Martha White

#### Near-Optimal Time and Sample Complexities for Solving Markov Decision Processes with a Generative Model

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #168  
Poster – In Wed Poster Session A  
Aaron Sidford · Mengdi Wang · Xian Wu · Lin Yang · Yinyu Ye

#### Monte-Carlo Tree Search for Constrained POMDPs

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #169  
Poster – In Wed Poster Session A  
Jongmin Lee · Geon-hyeong Kim · Pascal Poupart · Kee-Eung Kim

#### Investigations into the Human-AI Trust Phenomenon

Wed Dec 5th 02:15 – 03:05 PM @ Rooms 220 CDE  
Invited Talk – In Wed Invited Talk 2  
Ayanna Howard

#### Coffee Break

Wed Dec 5th 03:05 – 03:30 PM @  
Break –

## In Wed Track 1 – Session 2

Wed Dec 5th 03:30 – 03:35 PM @ Room 220 CD – Wed Dec 5th 04:55 – 05:00 PM @ Room 220 CD

#### Breaking the Curse of Horizon: Infinite-Horizon Off-Policy Estimation

Wed Dec 5th 03:30 – 03:35 PM @ Room 220 CD  
Spotlight – In Wed Track 1 – Session 2  
Qiang Liu · Lihong Li · Ziyang Tang · Dengyong Zhou  
Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #121

#### Graph Convolutional Policy Network for Goal-Directed Molecular Graph Generation

Wed Dec 5th 03:35 – 03:40 PM @ Room 220 CD  
Spotlight – In Wed Track 1 – Session 2  
Jiaxuan You · Bowen Liu · Zhitao Ying · Vijay Pande · Jure Leskovec  
Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #140

#### Memory Augmented Policy Optimization for Program Synthesis and Semantic Parsing

Wed Dec 5th 03:40 – 03:45 PM @ Room 220 CD  
Spotlight – In Wed Track 1 – Session 2  
Chen Liang · Mohammad Norouzi · Jonathan Berant · Quoc V Le · Ni Lao  
Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #137

#### Meta-Reinforcement Learning of Structured Exploration Strategies

Wed Dec 5th 03:45 – 03:50 PM @ Room 220 CD  
Spotlight – In Wed Track 1 – Session 2  
Abhishek Gupta · Russell Mendonca · YuXuan Liu · Pieter Abbeel · Sergey Levine  
Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #134

#### Policy Optimization via Importance Sampling

Wed Dec 5th 03:50 – 04:05 PM @ Room 220 CD  
Oral – In Wed Track 1 – Session 2  
Alberto Maria Metelli · Matteo Papini · Francesco Faccio · Marcello Restelli  
Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #109

#### A Bayesian Approach to Generative Adversarial Imitation Learning

Wed Dec 5th 04:05 – 04:10 PM @ Room 220 CD  
Spotlight – In Wed Track 1 – Session 2  
Wonseok Jeon · Seokin Seo · Kee-Eung Kim  
Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #129

#### Visual Reinforcement Learning with Imagined Goals

Wed Dec 5th 04:10 – 04:15 PM @ Room 220 CD  
Spotlight – In Wed Track 1 – Session 2  
Ashvin Nair · Vitchyr Pong · Murtaza Dalal · Shikhar Bahl · Steven Lin · Sergey Levine  
Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #141

#### Randomized Prior Functions for Deep Reinforcement Learning

Wed Dec 5th 04:15 – 04:20 PM @ Room 220 CD  
Spotlight – In Wed Track 1 – Session 2  
Ian Osband · John Aslanides · Albin Cassirer  
Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #154

#### Playing hard exploration games by watching YouTube

Wed Dec 5th 04:20 – 04:25 PM @ Room 220 CD  
Spotlight – In Wed Track 1 – Session 2  
Yusuf Aytar · Tobias Pfaff · David Budden · Thomas Paine · Ziyu Wang · Nando de Freitas  
Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #142

#### Recurrent World Models Facilitate Policy Evolution

Wed Dec 5th 04:25 – 04:40 PM @ Room 220 CD  
Oral – In Wed Track 1 – Session 2  
David Ha · Jürgen Schmidhuber  
Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #65

#### Reducing Network Agnostophobia

Wed Dec 5th 04:40 – 04:45 PM @ Room 220 CD  
Spotlight – In Wed Track 1 – Session 2  
Akshay Raj Dhamija · Manuel G?nther · Terrance Boulton  
Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #100

#### Life-Long Disentangled Representation Learning with Cross-Domain Latent Homologies

Wed Dec 5th 04:45 – 04:50 PM @ Room 220 CD  
 Spotlight – In Wed Track 1 – Session 2  
 Alessandro Achille · Tom Eccles · Loic Matthey · Chris Burgess · Nicholas Watters · Alexander Lerchner · Irina Higgins  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #101

#### Geometrically Coupled Monte Carlo Sampling

Wed Dec 5th 04:50 – 04:55 PM @ Room 220 CD  
 Spotlight – In Wed Track 1 – Session 2  
 Mark Rowland · Krzysztof Choromanski · François Chalus · Aldo Pacchiano · Tamas Sarlos · Richard E Turner · Adrian Weller  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #97

#### Scalable Laplacian K-modes

Wed Dec 5th 04:55 – 05:00 PM @ Room 220 CD  
 Spotlight – In Wed Track 1 – Session 2  
 Imtiaz Ziko · Eric Granger · Ismail Ben Ayed  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #96

## In Wed Track 2 – Session 2

**Wed Dec 5th 03:30 – 03:35 PM @ Room 220 E – Wed Dec 5th 04:55 – 05:00 PM @ Room 220 E**

#### Dynamic Network Model from Partial Observations

Wed Dec 5th 03:30 – 03:35 PM @ Room 220 E  
 Spotlight – In Wed Track 2 – Session 2  
 Elahe Ghalebi · Baharan Mirzasoleiman · Radu Grosu · Jure Leskovec  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #7

#### Stochastic Nonparametric Event-Tensor Decomposition

Wed Dec 5th 03:35 – 03:40 PM @ Room 220 E  
 Spotlight – In Wed Track 2 – Session 2  
 Shandian Zhe · Yishuai Du  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #12

#### On GANs and GMMs

Wed Dec 5th 03:40 – 03:45 PM @ Room 220 E  
 Spotlight – In Wed Track 2 – Session 2  
 Eitan Richardson · Yair Weiss  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #59

#### GILBO: One Metric to Measure Them All

Wed Dec 5th 03:45 – 03:50 PM @ Room 220 E  
 Spotlight – In Wed Track 2 – Session 2  
 Alexander Alemi · Ian Fischer  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #57

#### Isolating Sources of Disentanglement in Variational Autoencoders

Wed Dec 5th 03:50 – 04:05 PM @ Room 220 E  
 Oral – In Wed Track 2 – Session 2  
 Tian Qi Chen · Xuechen Li · Roger Grosse · David Duvenaud  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #58

#### Sparse Covariance Modeling in High Dimensions with Gaussian Processes

Wed Dec 5th 04:05 – 04:10 PM @ Room 220 E  
 Spotlight – In Wed Track 2 – Session 2  
 Rui Li · Kishan KC · Feng Cui · Justin Domke · Anne Haake  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #18

#### Efficient High Dimensional Bayesian Optimization with Additivity and Quadrature Fourier Features

Wed Dec 5th 04:10 – 04:15 PM @ Room 220 E  
 Spotlight – In Wed Track 2 – Session 2  
 Mojmir Mutny · Andreas Krause  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #23

#### Regret bounds for meta Bayesian optimization with an unknown Gaussian process prior

Wed Dec 5th 04:15 – 04:20 PM @ Room 220 E  
 Spotlight – In Wed Track 2 – Session 2  
 Zi Wang · Beomjoon Kim · Leslie Kaelbling  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #22

#### Adversarially Robust Optimization with Gaussian Processes

Wed Dec 5th 04:20 – 04:25 PM @ Room 220 E  
 Spotlight – In Wed Track 2 – Session 2  
 Ilija Bogunovic · Jonathan Scarlett · Stefanie Jegelka · Volkan Cevher  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #24

#### Approximate Knowledge Compilation by Online Collapsed Importance Sampling

Wed Dec 5th 04:25 – 04:40 PM @ Room 220 E  
 Oral – In Wed Track 2 – Session 2  
 Tal Friedman · Guy Van den Broeck  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #5

#### DAGs with NO TEARS: Continuous Optimization for Structure Learning

Wed Dec 5th 04:40 – 04:45 PM @ Room 220 E  
 Spotlight – In Wed Track 2 – Session 2  
 Xun Zheng · Bryon Aragam · Pradeep Ravikumar · Eric Xing  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #9

#### Proximal Graphical Event Models

Wed Dec 5th 04:45 – 04:50 PM @ Room 220 E  
 Spotlight – In Wed Track 2 – Session 2  
 Debarun Bhattacharjya · Dharmashankar Subramanian · Tian Gao  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #6

#### Heterogeneous Multi-output Gaussian Process Prediction

Wed Dec 5th 04:50 – 04:55 PM @ Room 220 E  
 Spotlight – In Wed Track 2 – Session 2  
 Pablo Moreno-Muñoz · Antonio Artés · Mauricio Ivarez  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #14

#### GPyTorch: Blackbox Matrix-Matrix Gaussian Process Inference with GPU Acceleration

Wed Dec 5th 04:55 – 05:00 PM @ Room 220 E  
 Spotlight – In Wed Track 2 – Session 2  
 Jacob Gardner · Geoff Pleiss · Kilian Weinberger · David Bindel · Andrew Wilson  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #13

## In Wed Track 3 – Session 2

**Wed Dec 5th 03:30 – 03:35 PM @ Room 517 CD – Wed Dec 5th 04:55 – 05:00 PM @ Room 517 CD**

#### The Nearest Neighbor Information Estimator is Adaptively Near Minimax Rate-Optimal

Wed Dec 5th 03:30 – 03:35 PM @ Room 517 CD  
 Spotlight – In Wed Track 3 – Session 2  
 Jiantao Jiao · Weihao Gao · Yanjun Han  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #86

#### Contextual Stochastic Block Models

Wed Dec 5th 03:35 – 03:40 PM @ Room 517 CD  
 Spotlight – In Wed Track 3 – Session 2  
 Yash Deshpande · Subhabrata Sen · Andrea Montanari · Elchanan Mossel  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #79

#### Entropy Rate Estimation for Markov Chains with Large State Space

Wed Dec 5th 03:40 – 03:45 PM @ Room 517 CD  
 Spotlight – In Wed Track 3 – Session 2  
 Yanjun Han · Jiantao Jiao · Chuan-Zheng Lee · Tsachy Weissman · Yihong Wu · Tiancheng Yu  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #82

#### Blind Deconvolutional Phase Retrieval via Convex Programming

Wed Dec 5th 03:45 – 03:50 PM @ Room 517 CD  
 Spotlight – In Wed Track 3 – Session 2  
 Ali Ahmed · Alireza Aghasi · Paul Hand  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #81

#### Stochastic Cubic Regularization for Fast Nonconvex Optimization

Wed Dec 5th 03:50 – 04:05 PM @ Room 517 CD  
 Oral – In Wed Track 3 – Session 2  
 Nilesch Tripuraneni · Mitchell Stern · Chi Jin · Jeffrey Regier · Michael Jordan  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #42

#### Stochastic Nested Variance Reduced Gradient Descent for Nonconvex Optimization

Wed Dec 5th 04:05 – 04:10 PM @ Room 517 CD  
 Spotlight – In Wed Track 3 – Session 2  
 Dongruo Zhou · Pan Xu · Quanquan Gu  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #44

#### On the Local Minima of the Empirical Risk

Wed Dec 5th 04:10 – 04:15 PM @ Room 517 CD  
 Spotlight – In Wed Track 3 – Session 2  
 Chi Jin · Lydia T. Liu · Rong Ge · Michael Jordan  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #43

#### How Much Restricted Isometry is Needed In Nonconvex Matrix Recovery?

Wed Dec 5th 04:15 – 04:20 PM @ Room 517 CD  
 Spotlight – In Wed Track 3 – Session 2  
 Richard Zhang · Cedric Jozz · Somayeh Sojoudi · Javad Lavaei  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #46

#### SPIDER: Near-Optimal Non-Convex Optimization via Stochastic Path-Integrated Differential Estimator

Wed Dec 5th 04:20 – 04:25 PM @ Room 517 CD  
 Spotlight – In Wed Track 3 – Session 2  
 Cong Fang · Chris Junchi Li · Zhouchen Lin · Tong Zhang  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #49

#### Analysis of Krylov Subspace Solutions of Regularized Non-Convex Quadratic Problems

Wed Dec 5th 04:25 – 04:40 PM @ Room 517 CD  
 Oral – In Wed Track 3 – Session 2  
 Yair Carmon · John Duchi  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #48

#### Natasha 2: Faster Non-Convex Optimization Than SGD

Wed Dec 5th 04:40 – 04:45 PM @ Room 517 CD  
 Spotlight – In Wed Track 3 – Session 2  
 Zeyuan Allen-Zhu  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #50

#### Escaping Saddle Points in Constrained Optimization

Wed Dec 5th 04:45 – 04:50 PM @ Room 517 CD  
 Spotlight – In Wed Track 3 – Session 2  
 Aryan Mokhtari · Asuman Ozdaglar · Ali Jadbabaie  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #47

#### On Coresets for Logistic Regression

Wed Dec 5th 04:50 – 04:55 PM @ Room 517 CD  
 Spotlight – In Wed Track 3 – Session 2  
 Alexander Munteanu · Chris Schwiegelshohn · Christian Sohler · David Woodruff  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #77

#### Legendre Decomposition for Tensors

Wed Dec 5th 04:55 – 05:00 PM @ Room 517 CD  
 Spotlight – In Wed Track 3 – Session 2  
 Mahito Sugiyama · Hiroyuki Nakahara · Koji Tsuda  
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #92

## In Wed Poster Session B

#### Equality of Opportunity in Classification: A Causal Approach

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #1  
 Poster – In Wed Poster Session B  
 Junzhe Zhang · Elias Bareinboim

#### Confounding-Robust Policy Improvement

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #2  
 Poster – In Wed Poster Session B  
 Nathan Kallus · Angela Zhou

#### Causal Discovery from Discrete Data using Hidden Compact Representation

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #3  
 Poster – In Wed Poster Session B  
 Ruichu Cai · Jie Qiao · Kun Zhang · Zhenjie Zhang · Zhifeng Hao

#### Dirichlet belief networks for topic structure learning

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #4  
 Poster – In Wed Poster Session B  
 He Zhao · Lan Du · Wray Buntine · Mingyuan Zhou

#### Approximate Knowledge Compilation by Online Collapsed Importance Sampling

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #5  
 Poster – In Wed Poster Session B  
 Tal Friedman · Guy Van den Broeck

#### Proximal Graphical Event Models

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #6  
 Poster – In Wed Poster Session B  
 Debarun Bhattacharjya · Dharmashankar Subramanian · Tian Gao

#### Dynamic Network Model from Partial Observations

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #7  
 Poster – In Wed Poster Session B  
 Elahe Ghalebi · Baharan Mirzasoleiman · Radu Grosu · Jure Leskovec

#### HOGWILD!-Gibbs can be PanAccurate

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #8  
 Poster – In Wed Poster Session B  
 Constantinos Daskalakis · Nishanth Dikkala · Siddhartha Jayanti

#### DAGs with NO TEARS: Continuous Optimization for Structure Learning

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #9  
 Poster – In Wed Poster Session B  
 Xun Zheng · Bryon Aragam · Pradeep Ravikumar · Eric Xing

#### Mean Field for the Stochastic Blockmodel: Optimization Landscape and Convergence Issues

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #10  
 Poster – In Wed Poster Session B  
 Soumendu Sundar Mukherjee · Purnamrita Sarkar · Y. X. Rachel Wang · Bowei Yan

#### Coupled Variational Bayes via Optimization Embedding

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #11  
 Poster – In Wed Poster Session B  
 Bo Dai · Hanjun Dai · Niao He · Weiyang Liu · Zhen Liu · Jianshu Chen · Lin Xiao · Le Song

#### Stochastic Nonparametric Event-Tensor Decomposition

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #12  
 Poster – In Wed Poster Session B  
 Shandian Zhe · Yishuai Du

**GPYtorch: Blackbox Matrix-Matrix Gaussian Process Inference with GPU Acceleration**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #13  
 Poster – In Wed Poster Session B  
 Jacob Gardner · Geoff Pleiss · Kilian Weinberger · David Bindel · Andrew Wilson

**Heterogeneous Multi-output Gaussian Process Prediction**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #14  
 Poster – In Wed Poster Session B  
 Pablo Moreno-Muñoz · Antonio Artés · Mauricio Alvarez

**Probabilistic Matrix Factorization for Automated Machine Learning**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #15  
 Poster – In Wed Poster Session B  
 Nicolo Fusi · Rishit Sheth · Melih Elibol

**Stochastic Expectation Maximization with Variance Reduction**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #16  
 Poster – In Wed Poster Session B  
 Jianfei Chen · Jun Zhu · Yee Whye Teh · Tong Zhang

**Generative Neural Machine Translation**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #17  
 Poster – In Wed Poster Session B  
 Harshil Shah · David Barber

**Sparse Covariance Modeling in High Dimensions with Gaussian Processes**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #18  
 Poster – In Wed Poster Session B  
 Rui Li · Kishan KC · Feng Cui · Justin Domke · Anne Haake

**Variational Learning on Aggregate Outputs with Gaussian Processes**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #19  
 Poster – In Wed Poster Session B  
 Ho Chung Law · Dino Sejdinovic · Ewan Cameron · Tim Lucas · Seth Flaxman · Katherine Battle · Kenji Fukumizu

**Learning Invariances using the Marginal Likelihood**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #20  
 Poster – In Wed Poster Session B  
 Mark van der Wilk · Matthias Bauer · ST John · James Hensman

**Dirichlet-based Gaussian Processes for Large-scale Calibrated Classification**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #21  
 Poster – In Wed Poster Session B  
 Dimitrios Miliotis · Raffaello Camoriano · Pietro Michiardi · Lorenzo Rosasco · Maurizio Filippone

**Regret bounds for meta Bayesian optimization with an unknown Gaussian process prior**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #22  
 Poster – In Wed Poster Session B  
 Zi Wang · Beomjoon Kim · Leslie Kaelbling

**Efficient High Dimensional Bayesian Optimization with Additivity and Quadrature Fourier Features**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #23  
 Poster – In Wed Poster Session B  
 Mojmir Mutny · Andreas Krause

**Adversarially Robust Optimization with Gaussian Processes**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #24  
 Poster – In Wed Poster Session B  
 Ilija Bogunovic · Jonathan Scarlett · Stefanie Jegelka · Volkan Cevher

**Multi-objective Maximization of Monotone Submodular Functions with Cardinality Constraint**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #25  
 Poster – In Wed Poster Session B  
 Rajan Udawani

**Variational PDEs for Acceleration on Manifolds and Application to Diffeomorphisms**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #26  
 Poster – In Wed Poster Session B  
 Ganesh Sundaramoorthi · Anthony Yezzi

**Zeroth-order (Non)-Convex Stochastic Optimization via Conditional Gradient and Gradient Updates**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #27  
 Poster – In Wed Poster Session B  
 Krishnakumar Balasubramanian · Saeed Ghadimi

**Computing Higher Order Derivatives of Matrix and Tensor Expressions**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #28  
 Poster – In Wed Poster Session B  
 Soeren Laue · Matthias Mitterreiter · Joachim Giesen

**How SGD Selects the Global Minima in Over-parameterized Learning: A Dynamical Stability Perspective**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #29  
 Poster – In Wed Poster Session B  
 Lei Wu · Chao Ma · Weinan E

**The Effect of Network Width on the Performance of Large-batch Training**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #30  
 Poster – In Wed Poster Session B  
 Lingjiao Chen · Hongyi Wang · Jinman Zhao · Dimitris Papailiopoulos · Paraschos Koutris

**COLA: Decentralized Linear Learning**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #31  
 Poster – In Wed Poster Session B  
 Lie He · An Bian · Martin Jaggi

**Distributed Stochastic Optimization via Adaptive SGD**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #32  
 Poster – In Wed Poster Session B  
 Ashok Cutkosky · Robert Busa-Fekete

**Non-Ergodic Alternating Proximal Augmented Lagrangian Algorithms with Optimal Rates**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #33  
 Poster – In Wed Poster Session B  
 Quoc Tran Dinh

**Breaking the Span Assumption Yields Fast Finite-Sum Minimization**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #34  
 Poster – In Wed Poster Session B  
 Robert Hannah · Yanli Liu · Daniel O'Connor · Wotao Yin

**Optimization for Approximate Submodularity**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #35  
 Poster – In Wed Poster Session B  
 Yaron Singer · Avinandan Hassidim

**Submodular Maximization via Gradient Ascent: The Case of Deep Submodular Functions**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #36  
 Poster – In Wed Poster Session B  
 Wenruo Bai · William Stafford Noble · Jeff Bilmes

**Maximizing Induced Cardinality Under a Determinantal Point Process**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #37  
Poster – In Wed Poster Session B  
Jennifer Gillenwater · Alex Kulesza · Sergei Vassilvitskii · Zelda Mariet

**Efficient Algorithms for Non-convex Isotonic Regression through Submodular Optimization**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #38  
Poster – In Wed Poster Session B  
Francis Bach

**Revisiting Decomposable Submodular Function Minimization with Incidence Relations**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #39  
Poster – In Wed Poster Session B  
Pan Li · Olgica Milenkovic

**Coordinate Descent with Bandit Sampling**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #40  
Poster – In Wed Poster Session B  
Farnood Salehi · Patrick Thiran · Elisa Celis

**Accelerated Stochastic Matrix Inversion: General Theory and Speeding up BFGS Rules for Faster Second-Order Optimization**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #41  
Poster – In Wed Poster Session B  
Robert Gower · Filip Hanzely · Peter Richtarik · Sebastian Stich

**Stochastic Cubic Regularization for Fast Nonconvex Optimization**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #42  
Poster – In Wed Poster Session B  
Nilesh Tripuraneni · Mitchell Stern · Chi Jin · Jeffrey Regier · Michael Jordan

**On the Local Minima of the Empirical Risk**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #43  
Poster – In Wed Poster Session B  
Chi Jin · Lydia T. Liu · Rong Ge · Michael Jordan

**Stochastic Nested Variance Reduced Gradient Descent for Nonconvex Optimization**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #44  
Poster – In Wed Poster Session B  
Dongruo Zhou · Pan Xu · Quanquan Gu

**NEON2: Finding Local Minima via First-Order Oracles**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #45  
Poster – In Wed Poster Session B  
Zeyuan Allen-Zhu · Yuanzhi Li

**How Much Restricted Isometry is Needed In Nonconvex Matrix Recovery?**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #46  
Poster – In Wed Poster Session B  
Richard Zhang · Cedric Jozs · Somayeh Sojoudi · Javad Lavaei

**Escaping Saddle Points in Constrained Optimization**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #47  
Poster – In Wed Poster Session B  
Aryan Mokhtari · Asuman Ozdaglar · Ali Jadbabaie

**Analysis of Krylov Subspace Solutions of Regularized Non-Convex Quadratic Problems**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #48  
Poster – In Wed Poster Session B  
Yair Carmon · John Duchi

**SPIDER: Near-Optimal Non-Convex Optimization via Stochastic Path-Integrated Differential Estimator**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #49  
Poster – In Wed Poster Session B  
Cong Fang · Chris Junchi Li · Zhouchen Lin · Tong Zhang

**Natasha 2: Faster Non-Convex Optimization Than SGD**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #50  
Poster – In Wed Poster Session B  
Zeyuan Allen-Zhu

**Zeroth-Order Stochastic Variance Reduction for Nonconvex Optimization**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #51  
Poster – In Wed Poster Session B  
Sijia Liu · Bhavya Kailkhura · Pin-Yu Chen · Paishun Ting · Shiyu Chang · Lisa Amini

**Structured Local Minima in Sparse Blind Deconvolution**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #52  
Poster – In Wed Poster Session B  
Yuqian Zhang · Han-wen Kuo · John Wright

**Algorithmic Regularization in Learning Deep Homogeneous Models: Layers are Automatically Balanced**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #53  
Poster – In Wed Poster Session B  
Simon Du · Wei Hu · Jason Lee

**Are ResNets Provably Better than Linear Predictors?**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #54  
Poster – In Wed Poster Session B  
Ohad Shamir

**Adaptive Methods for Nonconvex Optimization**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #55  
Poster – In Wed Poster Session B  
Manzil Zaheer · Sashank Reddi · Devendra Sachan · Satyen Kale · Sanjiv Kumar

**Alternating optimization of decision trees, with application to learning sparse oblique trees**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #56  
Poster – In Wed Poster Session B  
Miguel A. Carreira-Perpinan · Pooya Tavallali

**GILBO: One Metric to Measure Them All**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #57  
Poster – In Wed Poster Session B  
Alexander Alemi · Ian Fischer

**Isolating Sources of Disentanglement in Variational Autoencoders**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #58  
Poster – In Wed Poster Session B  
Tian Qi Chen · Xuechen Li · Roger Grosse · David Duvenaud

**On GANs and GMMs**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #59  
Poster – In Wed Poster Session B  
Eitan Richardson · Yair Weiss

**Assessing Generative Models via Precision and Recall**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #60  
Poster – In Wed Poster Session B  
Mehdi S. M. Sajjadi · Olivier Bachem · Mario Lucic · Olivier Bousquet · Sylvain Gelly

**Gather-Excite: Exploiting Feature Context in Convolutional Neural Networks**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #61  
Poster – In Wed Poster Session B  
Jie Hu · Li Shen · Samuel Albanie · Gang Sun · Andrea Vedaldi

**Uncertainty-Aware Attention for Reliable Interpretation and Prediction**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #62  
Poster – In Wed Poster Session B  
Jay Heo · Hae Beom Lee · Saehoon Kim · Juho Lee · Kwang Joon Kim · Eunho Yang · Sung Ju Hwang

**Forecasting Treatment Responses Over Time Using Recurrent Marginal Structural Networks**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #63  
Poster – In Wed Poster Session B  
Bryan Lim · Ahmed M. Alaa · Mihaela van der Schaar

**Backpropagation with Callbacks: Foundations for Efficient and Expressive Differentiable Programming**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #64  
Poster – In Wed Poster Session B  
Fei Wang · James Decker · Xilun Wu · Gregory Essertel · Tiark Rompf

**Recurrent World Models Facilitate Policy Evolution**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #65  
Poster – In Wed Poster Session B  
David Ha · J?rgen Schmidhuber

**Long short-term memory and Learning-to-learn in networks of spiking neurons**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #66  
Poster – In Wed Poster Session B  
Guillaume Bellec · Darjan Salaj · Anand Subramoney · Robert Legenstein · Wolfgang Maass

**Distributed Weight Consolidation: A Brain Segmentation Case Study**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #67  
Poster – In Wed Poster Session B  
Patrick McClure · Charles Zheng · Jakub Kacmarzyk · John Rogers-Lee · Satra Ghosh · Dylan Nielson · Peter A Bandettini · Francisco Pereira

**Learning to Play With Intrinsically-Motivated, Self-Aware Agents**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #68  
Poster – In Wed Poster Session B  
Nick Haber · Damian Mrowca · Stephanie Wang · Li Fei-Fei · Daniel Yamins

**Gradient Descent for Spiking Neural Networks**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #69  
Poster – In Wed Poster Session B  
Dongsung Huh · Terrence J Sejnowski

**Demystifying excessively volatile human learning: A Bayesian persistent prior and a neural approximation**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #70  
Poster – In Wed Poster Session B  
Chaitanya Ryali · Gautam Reddy · Angela J Yu

**Temporal alignment and latent Gaussian process factor inference in population spike trains**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #71  
Poster – In Wed Poster Session B  
Lea Duncker · Maneesh Sahani

**Information-based Adaptive Stimulus Selection to Optimize Communication Efficiency in Brain-Computer Interfaces**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #72  
Poster – In Wed Poster Session B  
Boyla Mainsah · Dmitry Kalika · Leslie Collins · Siyuan Liu · Chandra Throckmorton

**Model-based targeted dimensionality reduction for neuronal population data**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #73  
Poster – In Wed Poster Session B  
Mikio Aoi · Jonathan W Pillow

**Objective and efficient inference for couplings in neuronal networks**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #74  
Poster – In Wed Poster Session B  
Yu Terada · Tomoyuki Obuchi · Takuya Isomura · Yoshiyuki Kabashima

**The emergence of multiple retinal cell types through efficient coding of natural movies**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #75  
Poster – In Wed Poster Session B  
Samuel Ocko · Jack Lindsey · Surya Ganguli · Stephane Deny

**Benefits of over-parameterization with EM**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #76  
Poster – In Wed Poster Session B  
Ji Xu · Daniel Hsu · Arian Maleki

**On Coresets for Logistic Regression**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #77  
Poster – In Wed Poster Session B  
Alexander Munteanu · Chris Schwiegelshohn · Christian Sohler · David Woodruff

**On Learning Markov Chains**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #78  
Poster – In Wed Poster Session B  
Yi HAO · Alon Orlitsky · Venkatadheeraj Pichapati

**Contextual Stochastic Block Models**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #79  
Poster – In Wed Poster Session B  
Yash Deshpande · Subhabrata Sen · Andrea Montanari · Elchanan Mossel

**Estimators for Multivariate Information Measures in General Probability Spaces**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #80  
Poster – In Wed Poster Session B  
Arman Rahimzamani · Himanshu Asnani · Pramod Viswanath · Sreeram Kannan

**Blind Deconvolutional Phase Retrieval via Convex Programming**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #81  
Poster – In Wed Poster Session B  
Ali Ahmed · Alireza Aghasi · Paul Hand

**Entropy Rate Estimation for Markov Chains with Large State Space**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #82  
Poster – In Wed Poster Session B  
YanJun Han · Jiantao Jiao · Chuan-Zheng Lee · Tsachy Weissman · Yihong Wu · Tiancheng Yu

**Bandit Learning in Concave N-Person Games**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #83  
Poster – In Wed Poster Session B  
Mario Bravo · David Leslie · Panayotis Mertikopoulos

**Depth-Limited Solving for Imperfect-Information Games**

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #84  
Poster – In Wed Poster Session B  
Noam Brown · Tuomas Sandholm · Brandon Amos

#### The Physical Systems Behind Optimization Algorithms

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #85  
Poster – In Wed Poster Session B  
Lin Yang · Raman Arora · Vladimir Braverman · Tuo Zhao

#### The Nearest Neighbor Information Estimator is Adaptively Near Minimax Rate-Optimal

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #86  
Poster – In Wed Poster Session B  
Jiantao Jiao · Weihao Gao · Yanjun Han

#### Robust Learning of Fixed-Structure Bayesian Networks

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #87  
Poster – In Wed Poster Session B  
Yu Cheng · Ilias Diakonikolas · Daniel Kane · Alistair Stewart

#### Information-theoretic Limits for Community Detection in Network Models

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #88  
Poster – In Wed Poster Session B  
Chuyang Ke · Jean Honorio

#### Generalizing Graph Matching beyond Quadratic Assignment Model

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #89  
Poster – In Wed Poster Session B  
Tianshu Yu · Junchi Yan · Yilin Wang · Wei Liu · baoxin Li

#### Improving Simple Models with Confidence Profiles

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #90  
Poster – In Wed Poster Session B  
Amit Dhurandhar · Karthikeyan Shanmugam · Ronny Luss · Peder A Olsen

#### Online Learning with an Unknown Fairness Metric

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #91  
Poster – In Wed Poster Session B  
Stephen Gillen · Christopher Jung · Michael Kearns · Aaron Roth

#### Legendre Decomposition for Tensors

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #92  
Poster – In Wed Poster Session B  
Mahito Sugiyama · Hiroyuki Nakahara · Koji Tsuda

#### The Price of Privacy for Low-rank Factorization

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #93  
Poster – In Wed Poster Session B  
Jalaj Upadhyay

#### Empirical Risk Minimization in Non-interactive Local Differential Privacy Revisited

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #94  
Poster – In Wed Poster Session B  
Di Wang · Marco Gaboardi · Jinhui Xu

#### Differentially Private Change-Point Detection

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB  
Poster – In Wed Poster Session B  
Rachel Cummings · Sara Krehbiel · Yajun Mei · Rui Tuo · Wanrong Zhang

#### Scalable Laplacian K-modes

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #96  
Poster – In Wed Poster Session B  
Imtiaz Ziko · Eric Granger · Ismail Ben Ayed

#### Geometrically Coupled Monte Carlo Sampling

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #97  
Poster – In Wed Poster Session B  
Mark Rowland · Krzysztof Choromanski · François Chalus · Aldo Pacchiano · Tamas Sarlos · Richard E Turner · Adrian Weller

#### Continuous-time Value Function Approximation in Reproducing Kernel Hilbert Spaces

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #98  
Poster – In Wed Poster Session B  
Motoya Ohnishi · Masahiro Yukawa · Mikael Johansson · Masashi Sugiyama

#### Faster Online Learning of Optimal Threshold for Consistent F-measure Optimization

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #99  
Poster – In Wed Poster Session B  
Xiaoxuan Zhang · Mingrui Liu · Xun Zhou · Tianbao Yang

#### Reducing Network Agnostophobia

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #100  
Poster – In Wed Poster Session B  
Akshay Raj Dhamija · Manuel G?nther · Terrance Boulton

#### Life-Long Disentangled Representation Learning with Cross-Domain Latent Homologies

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #101  
Poster – In Wed Poster Session B  
Alessandro Achille · Tom Eccles · Loic Matthey · Chris Burgess · Nicholas Watters · Alexander Lerchner · Irina Higgins

#### Near-Optimal Policies for Dynamic Multinomial Logit Assortment Selection Models

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #102  
Poster – In Wed Poster Session B  
Yining Wang · Xi Chen · Yuan Zhou

#### The Everlasting Database: Statistical Validity at a Fair Price

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #103  
Poster – In Wed Poster Session B  
Blake Woodworth · Vitaly Feldman · Saharon Rosset · Nati Srebro

#### Scalar Posterior Sampling with Applications

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #104  
Poster – In Wed Poster Session B  
Georgios Theodorou · Zheng Wen · Yasin Abbasi · Nikos Vlassis

#### Iterative Value-Aware Model Learning

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #105  
Poster – In Wed Poster Session B  
Amir-massoud Farahmand

#### A Lyapunov-based Approach to Safe Reinforcement Learning

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #106  
Poster – In Wed Poster Session B  
Yinlam Chow · Ofir Nachum · Edgar Duenez-Guzman · Mohammad Ghavamzadeh

#### Temporal Regularization for Markov Decision Process

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #107  
Poster – In Wed Poster Session B  
Pierre Thodoroff · Audrey Durand · Joelle Pineau · Doina Precup

#### Maximum Causal Tsallis Entropy Imitation Learning

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #108  
Poster – In Wed Poster Session B  
Kyungjae Lee · Sungjoon Choi · Songhwai Oh

#### Policy Optimization via Importance Sampling



Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #109  
Poster – In Wed Poster Session B  
Alberto Maria Metelli · Matteo Papini · Francesco Faccio · Marcello Restelli

#### Reinforcement Learning of Theorem Proving

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #110  
Poster – In Wed Poster Session B  
Cezary Kaliszzyk · Josef Urban · Henryk Michalewski · Miroslav Olšovský

#### Simple random search of static linear policies is competitive for reinforcement learning

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #111  
Poster – In Wed Poster Session B  
Horia Mania · Aurelia Guy · Benjamin Recht

#### Meta-Gradient Reinforcement Learning

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #112  
Poster – In Wed Poster Session B  
Zhongwen Xu · Hado van Hasselt · David Silver

#### Reinforcement Learning for Solving the Vehicle Routing Problem

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #113  
Poster – In Wed Poster Session B  
MohammadReza Nazari · Afshin Oroojlooy · Lawrence Snyder · Martin Takac

#### Learn What Not to Learn: Action Elimination with Deep Reinforcement Learning

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #114  
Poster – In Wed Poster Session B  
Tom Zahavy · Matan Haroush · Nadav Merlis · Daniel J Mankowitz · Shie Mannor

#### REFUEL: Exploring Sparse Features in Deep Reinforcement Learning for Fast Disease Diagnosis

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #115  
Poster – In Wed Poster Session B  
Yu-Shao Peng · Kai-Fu Tang · Hsuan-Tien Lin · Edward Chang

#### Learning Plannable Representations with Causal InfoGAN

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #116  
Poster – In Wed Poster Session B  
Thanard Kurutach · Aviv Tamar · Ge Yang · Stuart Russell · Pieter Abbeel

#### Improving Exploration in Evolution Strategies for Deep Reinforcement Learning via a Population of Novelty-Seeking Agents

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #117  
Poster – In Wed Poster Session B  
Edoardo Conti · Vashisht Madhavan · Felipe Petroski Such · Joel Lehman · Kenneth Stanley · Jeff Clune

#### Transfer of Deep Reactive Policies for MDP Planning

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #118  
Poster – In Wed Poster Session B  
Aniket (Nick) Bajpai · Sankalp Garg · Mausam

#### Q-learning with Nearest Neighbors

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #119  
Poster – In Wed Poster Session B  
Devavrat Shah · Qiaomin Xie

#### Distributed Multitask Reinforcement Learning with Quadratic Convergence

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #120  
Poster – In Wed Poster Session B  
Rasul Tutunov · Dongho Kim · Haitham Bou Ammar

#### Breaking the Curse of Horizon: Infinite-Horizon Off-Policy Estimation

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #121  
Poster – In Wed Poster Session B  
Qiang Liu · Lihong Li · Ziyang Tang · Dengyong Zhou

#### Constrained Cross-Entropy Method for Safe Reinforcement Learning

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #122  
Poster – In Wed Poster Session B  
Min Wen · Ufuk Topcu

#### Representation Balancing MDPs for Off-policy Policy Evaluation

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #123  
Poster – In Wed Poster Session B  
Yao Liu · Omer Gottesman · Aniruddh Raghu · Matthieu Komorowski · Aldo A Faisal · Finale Doshi-Velez · Emma Brunskill

#### Dual Policy Iteration

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #124  
Poster – In Wed Poster Session B  
Wen Sun · Geoffrey Gordon · Byron Boots · J. Bagnell

#### Occam's razor is insufficient to infer the preferences of irrational agents

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #125  
Poster – In Wed Poster Session B  
Stuart Armstrong · Sören Mindermann

#### Transfer of Value Functions via Variational Methods

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #126  
Poster – In Wed Poster Session B  
Andrea Tirinzoni · Rafael Rodriguez Sanchez · Marcello Restelli

#### Reinforcement Learning with Multiple Experts: A Bayesian Model Combination Approach

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #127  
Poster – In Wed Poster Session B  
Michael Gimelfarb · Scott Sanner · Chi-Guhn Lee

#### Online Robust Policy Learning in the Presence of Unknown Adversaries

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #128  
Poster – In Wed Poster Session B  
Aaron Havens · Zhanhong Jiang · Soumik Sarkar

#### A Bayesian Approach to Generative Adversarial Imitation Learning

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #129  
Poster – In Wed Poster Session B  
Wonseok Jeon · Seokin Seo · Kee-Eung Kim

#### Verifiable Reinforcement Learning via Policy Extraction

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #130  
Poster – In Wed Poster Session B  
Osbert Bastani · Yewen Pu · Armando Solar-Lezama

#### Deep Reinforcement Learning of Marked Temporal Point Processes

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #131  
Poster – In Wed Poster Session B  
Utkarsh Upadhyay · Abir De · Manuel Gomez Rodriguez

#### On Learning Intrinsic Rewards for Policy Gradient Methods

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #132  
Poster – In Wed Poster Session B  
Zeyu Zheng · Junhyuk Oh · Satinder Singh

#### Evolution-Guided Policy Gradient in Reinforcement Learning

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #133  
Poster – In Wed Poster Session B  
Shauharda Khadka · Kagan Tumer

#### Meta-Reinforcement Learning of Structured Exploration Strategies

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #134  
Poster – In Wed Poster Session B  
Abhishek Gupta · Russell Mendonca · YuXuan Liu · Pieter Abbeel · Sergey Levine

#### Diversity-Driven Exploration Strategy for Deep Reinforcement Learning

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #135  
Poster – In Wed Poster Session B  
Zhang-Wei Hong · Tzu-Yun Shann · Shih-Yang Su · Yi-Hsiang Chang · Tsu-Jui Fu · Chun-Yi Lee

#### Genetic-Gated Networks for Deep Reinforcement Learning

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #136  
Poster – In Wed Poster Session B  
Simyung Chang · John Yang · Jaeseok Choi · Nojun Kwak

#### Memory Augmented Policy Optimization for Program Synthesis and Semantic Parsing

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #137  
Poster – In Wed Poster Session B  
Chen Liang · Mohammad Norouzi · Jonathan Berant · Quoc V Le · Ni Lao

#### Hardware Conditioned Policies for Multi-Robot Transfer Learning

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #138  
Poster – In Wed Poster Session B  
Tao Chen · Adithyavairavan Murali · Abhinav Gupta

#### Reward learning from human preferences and demonstrations in Atari

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB  
Poster – In Wed Poster Session B  
Borja Ibarz · Jan Leike · Tobias Pohlen · Geoffrey Irving · Shane Legg · Dario Amodei

#### Graph Convolutional Policy Network for Goal-Directed Molecular Graph Generation

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #140  
Poster – In Wed Poster Session B  
Jiaxuan You · Bowen Liu · Zhitao Ying · Vijay Pande · Jure Leskovec

#### Visual Reinforcement Learning with Imagined Goals

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #141  
Poster – In Wed Poster Session B  
Ashvin Nair · Vitchyr Pong · Murtaza Dalal · Shikhar Bahl · Steven Lin · Sergey Levine

#### Playing hard exploration games by watching YouTube

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #142  
Poster – In Wed Poster Session B  
Yusuf Aytar · Tobias Pfaff · David Budden · Thomas Paine · Ziyu Wang · Nando de Freitas

#### Unsupervised Video Object Segmentation for Deep Reinforcement Learning

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #143  
Poster – In Wed Poster Session B  
Vikash Goel · Jameson Weng · Pascal Poupart

#### Learning to Navigate in Cities Without a Map

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #144  
Poster – In Wed Poster Session B  
Piotr Mirowski · Matt Grimes · Mateusz Malinowski · Karl Moritz Hermann · Keith Anderson · Denis Teplyaev · Karen Simonyan · koray kavukcuoglu · Andrew Zisserman · Raia Hadsell

#### Learning Abstract Options

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #145  
Poster – In Wed Poster Session B  
Matthew Riemer · Miao Liu · Gerald Tesaro

#### Object-Oriented Dynamics Predictor

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #146  
Poster – In Wed Poster Session B  
Guangxiang Zhu · Zhiao Huang · Chongjie Zhang

#### A Deep Bayesian Policy Reuse Approach Against Non-Stationary Agents

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #147  
Poster – In Wed Poster Session B  
YAN ZHENG · Zhaopeng Meng · Jianye Hao · Zongzhang Zhang · Tianpei Yang · Changjie Fan

#### Learning Attentional Communication for Multi-Agent Cooperation

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #148  
Poster – In Wed Poster Session B  
Jiechuan Jiang · Zongqing Lu

#### Deep Dynamical Modeling and Control of Unsteady Fluid Flows

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #149  
Poster – In Wed Poster Session B  
Jeremy Morton · Antony Jameson · Mykel J Kochenderfer · Freddie Witherden

#### Adaptive Skip Intervals: Temporal Abstraction for Recurrent Dynamical Models

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #150  
Poster – In Wed Poster Session B  
Alexander Neitz · Giambattista Parascandolo · Stefan Bauer · Bernhard Schölkopf

#### Zero-Shot Transfer with Deictic Object-Oriented Representation in Reinforcement Learning

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #151  
Poster – In Wed Poster Session B  
Ofir Marom · Benjamin Rosman

#### Total stochastic gradient algorithms and applications in reinforcement learning

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #152  
Poster – In Wed Poster Session B  
Paavo Parmas

#### Fighting Boredom in Recommender Systems with Linear Reinforcement Learning

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #153  
Poster – In Wed Poster Session B  
Romain WARLOP · Alessandro Lazaric · Jérémie Mary

#### Randomized Prior Functions for Deep Reinforcement Learning

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #154  
Poster – In Wed Poster Session B  
Ian Osband · John Aslanides · Albin Cassirer

#### Scalable Coordinated Exploration in Concurrent Reinforcement Learning

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #155  
Poster – In Wed Poster Session B  
Maria Dimakopoulou · Ian Osband · Benjamin Van Roy

#### Context-dependent upper-confidence bounds for directed exploration

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #156  
 Poster – In Wed Poster Session B  
 Raksha Kumaraswamy · Matthew Schlegel · Adam White · Martha White

#### Multi-Agent Generative Adversarial Imitation Learning

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #157  
 Poster – In Wed Poster Session B  
 Jiaming Song · Hongyu Ren · Dorsa Sadigh · Stefano Ermon

#### Actor-Critic Policy Optimization in Partially Observable Multiagent Environments

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #158  
 Poster – In Wed Poster Session B  
 Sriram Srinivasan · Marc Lanctot · Vinicius Zambaldi · Julien Perolat · Karl Tuyls · Remi Munos · Michael Bowling

#### Learning to Share and Hide Intentions using Information Regularization

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #159  
 Poster – In Wed Poster Session B  
 Daniel Strouse · Max Kleiman-Weiner · Josh Tenenbaum · Matt Botvinick · David Schwab

#### Credit Assignment For Collective Multiagent RL With Global Rewards

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #160  
 Poster – In Wed Poster Session B  
 Duc Thien Nguyen · Akshat Kumar · Hoong Chuin Lau

#### Multi-Agent Reinforcement Learning via Double Averaging Primal-Dual Optimization

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #161  
 Poster – In Wed Poster Session B  
 Hoi-To Wai · Zhuoran Yang · Princeton Zhaoran Wang · Mingyi Hong

#### Learning Others’ Intentional Models in Multi-Agent Settings Using Interactive POMDPs

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #162  
 Poster – In Wed Poster Session B  
 Yanlin Han · Piotr Gmytrasiewicz

#### Bayesian Control of Large MDPs with Unknown Dynamics in Data-Poor Environments

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #163  
 Poster – In Wed Poster Session B  
 Mahdi Imani · Seyede Fatemeh Ghoreishi · Ulisses M. Braga-Neto

#### Negotiable Reinforcement Learning for Pareto Optimal Sequential Decision-Making

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #164  
 Poster – In Wed Poster Session B  
 Nishant Desai · Andrew Critch · Stuart J Russell

#### rho-POMDPs have Lipschitz-Continuous epsilon-Optimal Value Functions

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #165  
 Poster – In Wed Poster Session B  
 Mathieu Fehr · Olivier Buffet · Vincent Thomas · Jilles Dibangoye

#### Learning Task Specifications from Demonstrations

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #166  
 Poster – In Wed Poster Session B  
 Marcell Vazquez-Chanlatte · Susmit Jha · Ashish Tiwari · Mark Ho · Sanjit Seshia

#### Teaching Inverse Reinforcement Learners via Features and Demonstrations

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #167  
 Poster – In Wed Poster Session B  
 Luis Haug · Sebastian Tschitschek · Adish Singla

#### Single-Agent Policy Tree Search With Guarantees

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #168  
 Poster – In Wed Poster Session B  
 Laurent Orseau · Levi Lelis · Tor Lattimore · Theophane Weber

#### From Stochastic Planning to Marginal MAP

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #169  
 Poster – In Wed Poster Session B  
 Hao Cui · Radu Marinescu · Roni Khardon

#### Dual Principal Component Pursuit: Improved Analysis and Efficient Algorithms

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 & 230 AB #170  
 Poster – In Wed Poster Session B  
 Zhihui Zhu · Yifan Wang · Daniel Robinson · Daniel Naiman · Rene Vidal · Manolis Tsakiris