

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 517 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 517 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 #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 517 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 517 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 517 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 517 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 #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 517 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 #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 517 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 #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 517 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 Arandjelović · Akihiko Torii · Tomas Pajdla · Josef Sivic
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 517 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 517 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 517 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 Kosiorek · Hyunjik Kim · Yee Whye Teh · Ingmar Posner
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 #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 #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 517 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 517 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 ϵ - γ - τ -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 517 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 517 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 517 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 517 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 #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 #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 #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 517 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 #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 #73

In Wed Demonstrations

Wed Dec 5th 10:45 AM – 07:30 PM @ Room 510 ABCD #D10 – Wed Dec 5th 10:45 AM – 07:30 PM @ Room 510 ABCD #D9

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

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'écuyer-Lapierre · Ethan Gordon

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

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

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

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?a?ej Czapp

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

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

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 · F?lix Martel-Denis · Eric Matte · Julien Chouinard-Beaupr? · Adam Le-tourneau · Antoine Mercier-Nicol · Simon Brodeur · Fran?ois Ferland · Jean ROUAT

In Wed Poster Session A

Balanced Policy Evaluation and Learning

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

Exponentiated Strongly Rayleigh Distributions

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #24
 Poster – In Wed Poster Session A
 Adam Kosiorok · 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 #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 #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 #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 #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 #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 #30
 Poster – In Wed Poster Session A
 Julius Adebayo · Justin Gilmer · Michael Muehly · 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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #61

Poster – In Wed Poster Session A

Alyson Fletcher · Parthe Pandit · Sundeeep Rangan · Subrata Sarkar · Philip Schniter

The Description Length of Deep Learning models

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 #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 #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 #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 #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 #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 #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 #68

Poster – In Wed Poster Session A

Fran?ois Portier · Bernard Delyon

Inference Aided Reinforcement Learning for Incentive Mechanism Design in Crowdsourcing

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

ℓ_1 -regression with Heavy-tailed Distributions

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 210 #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 #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 #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 #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 #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 #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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 AB #120
 Poster – In Wed Poster Session A
 Andrei Zanfir · Elisabeta Marinoiu · Mihai Zanfir · Alin-Ionut Popa · Cristian Sminchisescu

A Neural Compositional Paradigm for Image Captioning

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 517 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 517 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 517 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 517 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 517 AB #125
 Poster – In Wed Poster Session A
 Xin Wang · 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 AB #138
 Poster – In Wed Poster Session A
 Edward Hughes · Joel Leibo · Matthew Phillips · Karl Tuyls · Edgar Due?ez-Guzman · Antonio Garc?a Casta?eda · 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 517 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 517 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 517 AB #141
 Poster – In Wed Poster Session A
 Jeremy Hoskins · Cameron Musco · Christopher Musco · Charalampos Tsourakakis

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

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 AB #151
 Poster – In Wed Poster Session A
 Michal Dereziński · Manfred Warmuth · Daniel Hsu

Revisiting (ϵ, γ, τ) -similarity learning for domain adaptation

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 517 AB #152
 Poster – In Wed Poster Session A
 Sofiane Dhoubi · Ievgen Redko

Differential Properties of Sinkhorn Approximation for Learning with Wasserstein Distance

Wed Dec 5th 10:45 AM – 12:45 PM @ Room 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 #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 #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 517 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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 Irujo
Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 #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 #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 #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 #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 #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 #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
Nilesh Tripuraneni · Mitchell Stern · Chi Jin · Jeffrey Regier · Michael Jordan
Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 #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 #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 #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 Jozs · Somayeh Sojoudi · Javad Lavaei
 Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 #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 #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 #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 #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 #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 #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 #92

In Wed Poster Session B

Equality of Opportunity in Classification: A Causal Approach

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

Probabilistic Matrix Factorization for Automated Machine Learning

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

Stochastic Expectation Maximization with Variance Reduction

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #32
Poster – In Wed Poster Session B
Ashok Cutkosky · R?bert Busa-Fekete

Non-Ergodic Alternating Proximal Augmented Lagrangian Algorithms with Optimal Rates

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

Coordinate Descent with Bandit Sampling

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

Escaping Saddle Points in Constrained Optimization

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

Adaptive Methods for Nonconvex Optimization

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #77

Poster – In Wed Poster Session B

Alexander Munteanu · Chris Schwiengelshohn · Christian Sohler · David Woodruff

On Learning Markov Chains

Wed Dec 5th 05:00 – 07:00 PM @ Room 210 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #95
 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 #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 #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 #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 #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 #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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 AB #110
 Poster – In Wed Poster Session B
 Cezary Kaliszyk · Josef Urban · Henryk Michalewski · Miroslav Ol??k

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

Wed Dec 5th 05:00 – 07:00 PM @ Room 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 AB #125

Poster – In Wed Poster Session B

Stuart Armstrong · S?ren Mindermann

Transfer of Value Functions via Variational Methods

Wed Dec 5th 05:00 – 07:00 PM @ Room 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 AB #139

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 517 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 517 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 517 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 517 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 517 AB #144

Poster – In Wed Poster Session B

Piotr Mirowski · Matt Grimes · Mateusz Malinowski · Karl Moritz Hermann · Keith Anderson · Denis Teplyashin · Karen Simonyan · koray kavukcuoglu · Andrew Zisserman · Raia Hadsell

Learning Abstract Options

Wed Dec 5th 05:00 – 07:00 PM @ Room 517 AB #145

Poster – In Wed Poster Session B

Matthew Riemer · Miao Liu · Gerald Tesauro

Object-Oriented Dynamics Predictor

Wed Dec 5th 05:00 – 07:00 PM @ Room 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 AB #167
 Poster – In Wed Poster Session B
 Luis Haug · Sebastian Tschiatschek · Adish Singla

Single-Agent Policy Tree Search With Guarantees

Wed Dec 5th 05:00 – 07:00 PM @ Room 517 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 517 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 517 AB #170
 Poster – In Wed Poster Session B
 Zhihui Zhu · Yifan Wang · Daniel Robinson · Daniel Naiman · Rene
 Vidal · Manolis Tsakiris