

Mon Dec 3rd

Adversarial Robustness: Theory and Practice

Mon Dec 3rd 08:30 – 10:30 AM @ Room 220 CD
Tutorial – In Tutorials Session 1
J. Zico Kolter · Aleksander Madry

Visualization for Machine Learning

Mon Dec 3rd 08:30 – 10:30 AM @ Room 220 E
Tutorial – In Tutorials Session 1
Fernanda Viégas · Martin Wattenberg

Scalable Bayesian Inference

Mon Dec 3rd 08:30 – 10:30 AM @ Room 517 CD
Tutorial – In Tutorials Session 1
David Dunson

Coffee Break

Mon Dec 3rd 10:30 – 11:00 AM @
Break –

Unsupervised Deep Learning

Mon Dec 3rd 11:00 AM – 01:00 PM @ Room 220 CD
Tutorial – In Tutorials Session 2
Alex Graves · Marc'Aurelio Ranzato

Common Pitfalls for Studying the Human Side of Machine Learning

Mon Dec 3rd 11:00 AM – 01:00 PM @ Room 220 E
Tutorial – In Tutorials Session 2
Deirdre Mulligan · Nitin Kohli · Joshua A. Kroll

Negative Dependence, Stable Polynomials, and All That

Mon Dec 3rd 11:00 AM – 01:00 PM @ Rooms 517 CD
Tutorial – In Tutorials Session 2
Suvrit Sra · Stefanie Jegelka

Statistical Learning Theory: a Hitchhiker's Guide

Mon Dec 3rd 02:30 – 04:30 PM @ Room 220 E
Tutorial – In Tutorials Session 3
John Shawe-Taylor · Omar Rivasplata

Automatic Machine Learning

Mon Dec 3rd 02:30 – 04:30 PM @ Room 220 CD
Tutorial – In Tutorials Session 3
Frank Hutter · Joaquin Vanschoren

Counterfactual Inference

Mon Dec 3rd 02:30 – 04:30 PM @ Room 517 CD
Tutorial – In Tutorials Session 3
Susan Athey

Coffee Break

Mon Dec 3rd 04:30 – 05:00 PM @
Break –

Opening Remarks

Mon Dec 3rd 05:00 – 05:30 PM @
Break –

Accountability and Algorithmic Bias: Why Diversity and Inclusion Matters

Mon Dec 3rd 05:30 – 06:20 PM @ Rooms 220 CDE
Invited Talk –
Laura Gomez

Opening Reception

Mon Dec 3rd 06:30 – 08:30 PM @
Break –

Tue Dec 4th

Machine Learning Meets Public Policy: What to Expect and How to Cope

Tue Dec 4th 08:30 – 09:20 AM @ Rooms 220 CDE
Invited Talk – In Tue Invited Talk 1
Edward W Felten

Test of Time Award

Tue Dec 4th 09:20 – 09:40 AM @
Talk – In Test of Time

Coffee Break

Tue Dec 4th 09:40 – 10:05 AM @
Break –

In Tue Track 1 – Session 1

Tue Dec 4th 10:05 – 10:20 AM @ Room 220 CD – Tue Dec 4th 10:30 – 10:45 AM @ Room 220 CD

On Neuronal Capacity

Tue Dec 4th 10:05 – 10:20 AM @ Room 220 CD
Oral – In Tue Track 1 – Session 1
Pierre Baldi · Roman Vershynin
Poster Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #142

Learning Overparameterized Neural Networks via Stochastic Gradient Descent on Structured Data

Tue Dec 4th 10:20 – 10:25 AM @ Room 220 CD
Spotlight – In Tue Track 1 – Session 1
Yuanzhi Li · Yingyu Liang
Poster Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #143

Size-Noise Tradeoffs in Generative Networks

Tue Dec 4th 10:25 – 10:30 AM @ Room 220 CD
Spotlight – In Tue Track 1 – Session 1
Bolton Bailey · Matus Telgarsky
Poster Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #141

Dendritic cortical microcircuits approximate the backpropagation algorithm

Tue Dec 4th 10:30 – 10:45 AM @ Room 220 CD
Oral – In Tue Track 1 – Session 1
Jo?o Sacramento · Rui Ponte Costa · Yoshua Bengio · Walter Senn
Poster Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #139

In Tue Track 2 – Session 1

Tue Dec 4th 10:05 – 10:20 AM @ Room 220 E – Tue Dec 4th 10:30 – 10:45 AM @ Room 220 E

On the Dimensionality of Word Embedding

Tue Dec 4th 10:05 – 10:20 AM @ Room 220 E
Oral – In Tue Track 2 – Session 1
Zi Yin · Yuanyuan Shen
Poster Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #101

Unsupervised Cross-Modal Alignment of Speech and Text Embedding Spaces

Tue Dec 4th 10:20 – 10:25 AM @ Room 220 E
Spotlight – In Tue Track 2 – Session 1
Yu-An Chung · Wei-Hung Weng · Schrasing Tong · James Glass
Poster Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #156

Diffusion Maps for Textual Network Embedding

Tue Dec 4th 10:25 – 10:30 AM @ Room 220 E
Spotlight – In Tue Track 2 – Session 1
Xinyuan Zhang · Yitong Li · Dinghan Shen · Lawrence Carin
Poster Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #152

A Retrieve-and-Edit Framework for Predicting Structured Outputs

Tue Dec 4th 10:30 – 10:45 AM @ Room 220 E
Oral – In Tue Track 2 – Session 1
Tatsunori Hashimoto · Kelvin Guu · Yonatan Oren · Percy Liang
Poster Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #154

In Tue Track 3 – Session 1

Tue Dec 4th 10:05 – 10:20 AM @ Room 517 CD – Tue Dec 4th 10:30 – 10:45 AM @ Room 517 CD

Phase Retrieval Under a Generative Prior

Tue Dec 4th 10:05 – 10:20 AM @ Room 517 CD
Oral – In Tue Track 3 – Session 1
Paul Hand · Oscar Leong · Vlad Voroninski
Poster Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #162

Global Geometry of Multichannel Sparse Blind Deconvolution on the Sphere

Tue Dec 4th 10:20 – 10:25 AM @ Room 517 CD
Spotlight – In Tue Track 3 – Session 1
Yanjun Li · Yoram Bresler
Poster Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #161

Theoretical Linear Convergence of Unfolded ISTA and Its Practical Weights and Thresholds

Tue Dec 4th 10:25 – 10:30 AM @ Room 517 CD
Spotlight – In Tue Track 3 – Session 1
Xiaohan Chen · Jialin Liu · Zhangyang Wang · Wotao Yin
Poster Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #163

Spectral Filtering for General Linear Dynamical Systems

Tue Dec 4th 10:30 – 10:45 AM @ Room 517 CD
Oral – In Tue Track 3 – Session 1
Elad Hazan · HOLDEN LEE · Karan Singh · Cyril Zhang · Yi Zhang
Poster Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #167

In Tue Demonstrations

Tue Dec 4th 10:45 AM – 07:30 PM @ Room 510 ABCD #D3 – Tue Dec 4th 10:45 AM – 07:30 PM @ Room 510 ABCD #D10

Ruuh: A Deep Learning Based Conversational Social Agent

Tue Dec 4th 10:45 AM – 07:30 PM @ Room 510 ABCD #D3
Demonstration – In Tue Demonstrations
Puneet Agrawal · Manoj Kumar Chinnakotla · Sonam Damani · Meghana Joshi · Kedhar Nath Narahari · Khyatti Gupta · Nitya Raviprakash · Umang Gupta · Ankush Chatterjee · Abhishek Mathur · Sneha Magapu

Reproducing Machine Learning Research on Binder

Tue Dec 4th 10:45 AM – 07:30 PM @ Room 510
Demonstration – In Tue Demonstrations
Jessica Forde · Tim Head · Chris Holdgraf · M Pacer · F?lix-Antoine Fortin · Fernando Perez

A model-agnostic web interface for interactive music composition by inpainting

Tue Dec 4th 10:45 AM – 07:30 PM @ Room 510 ABCD #D8
Demonstration – In Tue Demonstrations
Ga?tan Hadjeres · Th?is Bazin · Ashis Pati

A machine learning environment to determine novel malaria policies

Tue Dec 4th 10:45 AM – 07:30 PM @ Room 510 ABCD #D9
Demonstration – In Tue Demonstrations
Oliver Bent · Sekou L Remy · Nelson Bore

A Hands-free Natural User Interface (NUI) for AR/VR Head-Mounted Displays Exploiting Wearer's Facial Gestures

Tue Dec 4th 10:45 AM – 07:30 PM @ Room 510 ABCD #D7
Demonstration – In Tue Demonstrations
Jaekwang Cha · Shiho Kim · Jinhyuk Kim

Deep Neural Networks Running Onboard Anki's Robot, Vector

Tue Dec 4th 10:45 AM – 07:30 PM @ Room 510 ABCD #D1
Demonstration – In Tue Demonstrations
Lorenzo Riano · Andrew Stein · Mark Palatucci

TensorFlow Dance - Learning to Dance via Machine Learning

Tue Dec 4th 10:45 AM – 07:30 PM @ Room 510
Demonstration – In Tue Demonstrations
Yaz Santissi · Jonathan DEKHTIAR · Chintan Trivedi

Game for Detecting Backdoor Attacks on Deep Neural Networks using Activation Clustering

Tue Dec 4th 10:45 AM – 07:30 PM @ Room 510 ABCD #D4
Demonstration – In Tue Demonstrations
Casey Dugan · Werner Geyer · Aabhas Sharma · Ingrid Lange · Dustin Ramsey Torres · Bryant Chen · Nathalie Baracaldo Angel · Heiko Ludwig

Deep learning to improve quality control in pharmaceutical manufacturing

Tue Dec 4th 10:45 AM – 07:30 PM @ Room 510 ABCD #D5
Demonstration – In Tue Demonstrations
Michael Sass Hansen · Sebastian Brandes Kraaijenzank

TextWorld: A Learning Environment for Text-based Games

Tue Dec 4th 10:45 AM – 07:30 PM @ Room 510 ABCD #D10
Demonstration – In Tue Demonstrations
Marc-Alexandre Côté · Wendy Tay · Eric Yuan

In Tue Poster Session A

Modelling sparsity, heterogeneity, reciprocity and community structure in temporal interaction data

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #1
Poster – In Tue Poster Session A
Xenia Miscouridou · Francois Caron · Yee Whye Teh

The Lingering of Gradients: How to Reuse Gradients Over Time

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #2
Poster – In Tue Poster Session A
Zeyuan Allen-Zhu · David Simchi-Levi · Xinshang Wang

Quadratic Decomposable Submodular Function Minimization

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #3
Poster – In Tue Poster Session A
Pan Li · Niao He · Olga Milenkovic

On the Global Convergence of Gradient Descent for Over-parameterized Models using Optimal Transport

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #4
Poster – In Tue Poster Session A
Léon Chizat · Francis Bach

Leveraging the Exact Likelihood of Deep Latent Variable Models

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #5
Poster – In Tue Poster Session A
Pierre-Alexandre Mattei · Jes Frellsen

DVAE\#: Discrete Variational Autoencoders with Relaxed Boltzmann Priors

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #6
Poster – In Tue Poster Session A
Arash Vahdat · Evgeny Andriyash · William Macready

Amortized Inference Regularization

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #7
Poster – In Tue Poster Session A
Rui Shu · Hung Bui · Shengjia Zhao · Mykel J Kochenderfer · Stefano Ermon

Gumbolt: Extending Gumbel trick to Boltzmann priors

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #8
Poster – In Tue Poster Session A
Amir H Khoshaman · Mohammad Amin

Constrained Generation of Semantically Valid Graphs via Regularizing Variational Autoencoders

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #9
Poster – In Tue Poster Session A
Tengfei Ma · Jie Chen · Cao Xiao

Invertibility of Convolutional Generative Networks from Partial Measurements

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #10
Poster – In Tue Poster Session A
Fangchang Ma · Ulas Ayaz · Sertac Karaman

Glow: Generative Flow with Invertible 1x1 Convolutions

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #11
Poster – In Tue Poster Session A
Durk Kingma · Prafulla Dhariwal

Multimodal Generative Models for Scalable Weakly-Supervised Learning

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #12
Poster – In Tue Poster Session A
Mike Wu · Noah Goodman

IntroVAE: Introspective Variational Autoencoders for Photographic Image Synthesis

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #13
Poster – In Tue Poster Session A
Huaibo Huang · zhihang li · Ran He · Zhenan Sun · Tieniu Tan

Towards Text Generation with Adversarially Learned Neural Outlines

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #14
Poster – In Tue Poster Session A
Sandeep Subramanian · Sai Rajeswar Mudumba · Alessandro Sordani · Adam Trischler · Aaron Courville · Chris Pal

Unsupervised Image-to-Image Translation Using Domain-Specific Variational Information Bound

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #15
Poster – In Tue Poster Session A
Hadi Kazemi · Sobhan Soleymani · Fariborz Taherkhani · Seyed Iranmanesh · Nasser Nasrabadi

Adversarial Scene Editing: Automatic Object Removal from Weak Supervision

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #16
Poster – In Tue Poster Session A
Rakshith R Shetty · Mario Fritz · Bernt Schiele

Generalizing Point Embeddings using the Wasserstein Space of Elliptical Distributions

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #17
Poster – In Tue Poster Session A
Boris Muzellec · Marco Cuturi

Banach Wasserstein GAN

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #18
Poster – In Tue Poster Session A
Jonas Adler · Sebastian Lunz

A Convex Duality Framework for GANs

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #19
Poster – In Tue Poster Session A
Farzan Farnia · David Tse

On the Convergence and Robustness of Training GANs with Regularized Optimal Transport

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #20
Poster – In Tue Poster Session A
Maziar Sanjabi · Jimmy Ba · Meisam Razaviyayn · Jason Lee

On gradient regularizers for MMD GANs

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #21
Poster – In Tue Poster Session A
Michael Arbel · Dougal Sutherland · Mikołaj Bińkowski · Arthur Gretton

PacGAN: The power of two samples in generative adversarial networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #22
Poster – In Tue Poster Session A
Zinan Lin · Ashish Kheta · Giulia Fanti · Sewoong Oh

Are GANs Created Equal? A Large-Scale Study

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #23
Poster – In Tue Poster Session A
Mario Lucic · Karol Kurach · Marcin Michalski · Sylvain Gelly · Olivier Bousquet

Disconnected Manifold Learning for Generative Adversarial Networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #24
Poster – In Tue Poster Session A
Mahyar Khayatkhoei · Maneesh K. Singh · Ahmed Elgammal

Hessian-based Analysis of Large Batch Training and Robustness to Adversaries

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #25
Poster – In Tue Poster Session A
Zhewei Yao · Amir Gholami · Qi Lei · Kurt Keutzer · Michael W. Mahoney

Fast and Effective Robustness Certification

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #26
Poster – In Tue Poster Session A
Gagandeep Singh · Timon Gehr · Matthew Mirman · Markus P. Schel · Martin Vechev

Graphical Generative Adversarial Networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #27
Poster – In Tue Poster Session A
Chongxuan Li · Max Welling · Jun Zhu · Bo Zhang

Deep Defense: Training DNNs with Improved Adversarial Robustness

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #28
Poster – In Tue Poster Session A
Ziang Yan · Yiwen Guo · Changshui Zhang

Learning to Repair Software Vulnerabilities with Generative Adversarial Networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #29
Poster – In Tue Poster Session A
Jacob Harer · Onur Ozdemir · Tomo Lazovich · Christopher Reale · Rebecca Russell · Louis Kim · peter chin

Memory Replay GANs: Learning to Generate New Categories without Forgetting

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #30
Poster – In Tue Poster Session A
Chenshen Wu · Luis Herranz · Xialei Liu · yaxing wang · Joost van de Weijer · Bogdan Raducanu

Unsupervised Attention-guided Image-to-Image Translation

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #31
Poster – In Tue Poster Session A
Youssef Alami Mejjati · Christian Richardt · James Tompkin · Darren Cosker · Kwang In Kim

Conditional Adversarial Domain Adaptation

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #32
Poster – In Tue Poster Session A
Mingsheng Long · ZHANGJIE CAO · Jianmin Wang · Michael Jordan

Video-to-Video Synthesis

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #33
Poster – In Tue Poster Session A
Ting-Chun Wang · Ming-Yu Liu · Jun-Yan Zhu · Nikolai Yakovenko · Andrew Tao · Jan Kautz · Bryan Catanzaro

Generalized Zero-Shot Learning with Deep Calibration Network

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #34
Poster – In Tue Poster Session A
Shichen Liu · Mingsheng Long · Jianmin Wang · Michael Jordan

Low-shot Learning via Covariance-Preserving Adversarial Augmentation Networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #35
Poster – In Tue Poster Session A
Hang Gao · Zheng Shou · Alireza Zareian · Hanwang Zhang · Shih-Fu Chang

Trading robust representations for sample complexity through self-supervised visual experience

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #36
Poster – In Tue Poster Session A
Andrea Tacchetti · Stephen Voinea · Georgios Evangelopoulos

TADAM: Task dependent adaptive metric for improved few-shot learning

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #37
Poster – In Tue Poster Session A
Boris Oreshkin · Pau Rodriguez Lopez · Alexandre Lacoste

FishNet: A Versatile Backbone for Image, Region, and Pixel Level Prediction

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #38
Poster – In Tue Poster Session A
Shuyang Sun · Jiangmiao Pang · Jianping Shi · Shuai Yi · Wanli Ouyang

Batch-Instance Normalization for Adaptively Style-Invariant Neural Networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #39
Poster – In Tue Poster Session A
Hyeonseob Nam · Hyo-Eun Kim

A²-Nets: Double Attention Networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #40
Poster – In Tue Poster Session A
Yunpeng Chen · Yannis Kalantidis · Jianshu Li · Shuicheng Yan · Jiashi Feng

Pelee: A Real-Time Object Detection System on Mobile Devices

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #41
Poster – In Tue Poster Session A
Jun Wang · Tanner Bohn · Charles Ling

PointCNN: Convolution On X-Transformed Points

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #42
Poster – In Tue Poster Session A
Yangyan Li · Rui Bu · Mingchao Sun · Wei Wu · Xinhan Di · Baoquan Chen

Deep Neural Networks with Box Convolutions

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #43
Poster – In Tue Poster Session A
Egor Burkov · Victor Lempitsky

An intriguing failing of convolutional neural networks and the CoordConv solution

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #44
Poster – In Tue Poster Session A
Rosanne Liu · Joel Lehman · Piero Molino · Felipe Petroski Such · Eric Frank · Alex Sergeev · Jason Yosinski

3D Steerable CNNs: Learning Rotationally Equivariant Features in Volumetric Data

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #45
Poster – In Tue Poster Session A
Maurice Weiler · Wouter Boomsma · Mario Geiger · Max Welling · Taco Cohen

Moonshine: Distilling with Cheap Convolutions

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #46
Poster – In Tue Poster Session A
Elliot J. Crowley · Gavin Gray · Amos Storkey

Kalman Normalization: Normalizing Internal Representations Across Network Layers

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #47
Poster – In Tue Poster Session A
Guangrun Wang · jiefeng peng · Ping Luo · Xinjiang Wang · Liang Lin

SplineNets: Continuous Neural Decision Graphs

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #48
Poster – In Tue Poster Session A
Cem Keskin · Shahram Izadi

CapProNet: Deep Feature Learning via Orthogonal Projections onto Capsule Subspaces

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #49
Poster – In Tue Poster Session A
Liheng Zhang · Marzieh Edraki · Guo-Jun Qi

Which Neural Net Architectures Give Rise to Exploding and Vanishing Gradients?

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #50
Poster – In Tue Poster Session A
Boris Hanin

Exact natural gradient in deep linear networks and its application to the nonlinear case

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #51
Poster – In Tue Poster Session A
Alberto Bernacchia · Mate Lengyel · Guillaume Hennequin

Fast Approximate Natural Gradient Descent in a Kronecker Factored Eigenbasis

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #52
Poster – In Tue Poster Session A
Thomas George · C?sar Laurent · Xavier Bouthillier · Nicolas Ballas · Pascal Vincent

Post: Device Placement with Cross-Entropy Minimization and Proximal Policy Optimization

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #53
Poster – In Tue Poster Session A
Yuanxiang Gao · Li Chen · Baochun Li

Paraphrasing Complex Network: Network Compression via Factor Transfer

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #54
Poster – In Tue Poster Session A
Jangho Kim · Seonguk Park · Nojun Kwak

Learning Compressed Transforms with Low Displacement Rank

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #55
Poster – In Tue Poster Session A
Anna Thomas · Albert Gu · Tri Dao · Atri Rudra · Christopher R?

Knowledge Distillation by On-the-Fly Native Ensemble

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #56
Poster – In Tue Poster Session A
xu lan · Xiatian Zhu · Shaogang Gong

Scalable methods for 8-bit training of neural networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #57
Poster – In Tue Poster Session A
Ron Banner · Itay Hubara · Elad Hoffer · Daniel Soudry

Training Deep Models Faster with Robust, Approximate Importance Sampling

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #58
Poster – In Tue Poster Session A
Tyler Johnson · Carlos Guestrin

Collaborative Learning for Deep Neural Networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #59
Poster – In Tue Poster Session A
Guocong Song · Wei Chai

A Linear Speedup Analysis of Distributed Deep Learning with Sparse and Quantized Communication

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #60
Poster – In Tue Poster Session A
Peng Jiang · Gagan Agrawal

Bayesian Distributed Stochastic Gradient Descent

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #61
Poster – In Tue Poster Session A
Michael Teng · Frank Wood

Regularizing by the Variance of the Activations' Sample-Variations

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #62
Poster – In Tue Poster Session A
Etaï Littwin · Lior Wolf

BML: A High-performance, Low-cost Gradient Synchronization Algorithm for DML Training

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #63
Poster – In Tue Poster Session A
Songtao Wang · Dan Li · Yang Cheng · Jinkun Geng · Yanshu Wang · Shuai Wang · Shu-Tao Xia · Jianping Wu

L4: Practical loss-based stepsize adaptation for deep learning

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #64
Poster – In Tue Poster Session A
Michal Rolinek · Georg Martius

Synaptic Strength For Convolutional Neural Network

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #65
Poster – In Tue Poster Session A
CHEN LIN · Zhao Zhong · Wu Wei · Junjie Yan

ChannelNets: Compact and Efficient Convolutional Neural Networks via Channel-Wise Convolutions

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #66
Poster – In Tue Poster Session A
Hongyang Gao · Zhengyang Wang · Shuiwang Ji

Frequency-Domain Dynamic Pruning for Convolutional Neural Networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #67
Poster – In Tue Poster Session A
Zhenhua Liu · Jizheng Xu · Xiulian Peng · Ruiqin Xiong

TETRIS: Tile-matching the TREmendous Irregular Sparsity

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #68
Poster – In Tue Poster Session A
Yu Ji · Ling Liang · Lei Deng · Youyang Zhang · Youhui Zhang · Yuan Xie

Heterogeneous Bitwidth Binarization in Convolutional Neural Networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #69
Poster – In Tue Poster Session A
Joshua Fromm · Shwetak Patel · Matthai Philipose

HitNet: Hybrid Ternary Recurrent Neural Network

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #70
Poster – In Tue Poster Session A
Peiqi Wang · Xinfeng Xie · Lei Deng · Guoqi Li · Dongsheng Wang · Yuan Xie

A General Method for Amortizing Variational Filtering

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #71
Poster – In Tue Poster Session A
Joseph Marino · Milan Cvitkovic · Yisong Yue

Multiple Instance Learning for Efficient Sequential Data Classification on Resource-constrained Devices

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #72
Poster – In Tue Poster Session A
Don Dennis · Chirag Pabbaraju · Harsha Vardhan Simhadri · Pra-teek Jain

Navigating with Graph Representations for Fast and Scalable Decoding of Neural Language Models

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #73
Poster – In Tue Poster Session A
Minjia Zhang · Wenhan Wang · Xiaodong Liu · Jianfeng Gao · Yux-iong He

Representer Point Selection for Explaining Deep Neural Networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #74
Poster – In Tue Poster Session A
Chih-Kuan Yeh · Joon Kim · Ian En-Hsu Yen · Pradeep Ravikumar

Interpreting Neural Network Judgments via Minimal, Stable, and Symbolic Corrections

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #75
Poster – In Tue Poster Session A
Xin Zhang · Armando Solar-Lezama · Rishabh Singh

DropMax: Adaptive Variational Softmax

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #76
Poster – In Tue Poster Session A
Hae Beom Lee · Juho Lee · Saehoon Kim · Eunho Yang · Sung Ju Hwang

Out-of-Distribution Detection using Multiple Semantic Label Representations

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #77
Poster – In Tue Poster Session A
Gabi Shalev · Yossi Adi · Joseph Keshet

End-to-end Symmetry Preserving Inter-atomic Potential Energy Model for Finite and Extended Systems

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #78
Poster – In Tue Poster Session A
Linfeng Zhang · Jiequn Han · Han Wang · Wissam Saidi · Roberto Car · Weinan E

Deep Predictive Coding Network with Local Recurrent Processing for Object Recognition

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #79
Poster – In Tue Poster Session A
Kuan Han · Haiguang Wen · Yizhen Zhang · Di Fu · Eugenio Culur-ciello · Zhongming Liu

SLAYER: Spike Layer Error Reassignment in Time

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #80
Poster – In Tue Poster Session A
Sumit Bam Shrestha · Garrick Orchard

DeepPINK: reproducible feature selection in deep neural networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #81
Poster – In Tue Poster Session A
Yang Lu · Yingying Fan · Jinchi Lv · William Stafford Noble

Learning long-range spatial dependencies with horizontal gated recurrent units

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #82
Poster – In Tue Poster Session A
Drew Linsley · Junkyung Kim · Vijay Veerabadran · Charles Windolf · Thomas Serre

Neural Interaction Transparency (NIT): Disentangling Learned Interactions for Improved Interpretability

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #83
Poster – In Tue Poster Session A
Michael Tsang · Hanpeng Liu · Sanjay Purushotham · Pavankumar Murali · Yan Liu

A Bridging Framework for Model Optimization and Deep Propagation

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #84
Poster – In Tue Poster Session A
Risheng Liu · Shichao Cheng · xiaokun liu · Long Ma · Xin Fan · Zhongxuan Luo

The Importance of Sampling in Meta-Reinforcement Learning

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #85
Poster – In Tue Poster Session A
Bradly Stadie · Ge Yang · Rein Houthooft · Peter Chen · Yan Duan · Yuhuai Wu · Pieter Abbeel · Ilya Sutskever

Latent Alignment and Variational Attention

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #86
Poster – In Tue Poster Session A
Yuntian Deng · Yoon Kim · Justin Chiu · Demi Guo · Alexander Rush

Variational Memory Encoder-Decoder

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #87
Poster – In Tue Poster Session A
Hung Le · Truyen Tran · Thin Nguyen · Svetha Venkatesh

Relational recurrent neural networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #88
Poster – In Tue Poster Session A
Adam Santoro · Ryan Faulkner · David Raposo · Jack Rae · Mike Chrzanowski · Theophane Weber · Daan Wierstra · Oriol Vinyals · Razvan Pascanu · Timothy Lillicrap

Learning to Reason with Third Order Tensor Products

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #89
Poster – In Tue Poster Session A
Imanol Schlag · J?rgen Schmidhuber

Reversible Recurrent Neural Networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #90
Poster – In Tue Poster Session A
Matthew MacKay · Paul Vicol · Jimmy Ba · Roger Grosse

Breaking the Activation Function Bottleneck through Adaptive Parameterization

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #91
Poster – In Tue Poster Session A
Sebastian Flennerhag · Hujun Yin · John Keane · Mark Elliot

BRITS: Bidirectional Recurrent Imputation for Time Series

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #92
Poster – In Tue Poster Session A
Wei Cao · Qi Wei · Jian Li · Hao Zhou · Lei Li · Yitan Li

Complex Gated Recurrent Neural Networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #93
Poster – In Tue Poster Session A
Moritz Wolter · Angela Yao

Middle-Out Decoding

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #94
Poster – In Tue Poster Session A
Shikib Mehri · Leonid Sigal

Recurrently Controlled Recurrent Networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #95
Poster – In Tue Poster Session A
Yi Tay · Anh Tuan Luu · Siu Cheung Hui

Tree-to-tree Neural Networks for Program Translation

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #96
Poster – In Tue Poster Session A
Xinyun Chen · Chang Liu · Dawn Song

HOUDINI: Lifelong Learning as Program Synthesis

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #97
Poster – In Tue Poster Session A
Lazar Valkov · Dipak Chaudhari · Akash Srivastava · Charles Sutton · Swarat Chaudhuri

Neural Guided Constraint Logic Programming for Program Synthesis

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #98
Poster – In Tue Poster Session A
Lisa Zhang · Gregory Rosenblatt · Ethan Fetaya · Renjie Liao · William Byrd · Matthew Might · Raquel Urtasun · Richard Zemel

Embedding Logical Queries on Knowledge Graphs

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #99
Poster – In Tue Poster Session A
Will Hamilton · Payal Bajaj · Marinka Zitnik · Dan Jurafsky · Jure Leskovec

Expanding Holographic Embeddings for Knowledge Completion

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #100
Poster – In Tue Poster Session A
Yexiang Xue · Yang Yuan · Zhitian Xu · Ashish Sabharwal

On the Dimensionality of Word Embedding

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #101
Poster – In Tue Poster Session A
Zi Yin · Yuanyuan Shen

Flexible neural representation for physics prediction

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #102
Poster – In Tue Poster Session A
Damian Mrowca · Chengxu Zhuang · Elias Wang · Nick Haber · Li Fei-Fei · Josh Tenenbaum · Daniel Yamins

Content preserving text generation with attribute controls

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #103
Poster – In Tue Poster Session A
Lajanugen Logeswaran · Honglak Lee · Samy Bengio

Recurrent Relational Networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #104
Poster – In Tue Poster Session A
Rasmus Palm · Ulrich Paquet · Ole Winther

GLOMo: Unsupervised Learning of Transferable Relational Graphs

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #105
Poster – In Tue Poster Session A
Zhilin Yang · Jake Zhao · Bhuwan Dhingra · Kaiming He · William Cohen · Ruslan Salakhutdinov · Yann LeCun

Predictive Uncertainty Estimation via Prior Networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #106
Poster – In Tue Poster Session A
Andrey Malinin · Mark Gales

Adversarial Multiple Source Domain Adaptation

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #107
Poster – In Tue Poster Session A
Han Zhao · Shanghang Zhang · Guanhang Wu · Jos? M. F. Moura · Joao P. Costeira · Geoffrey Gordon

Adversarial Examples that Fool both Computer Vision and Time-Limited Humans

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #108
Poster – In Tue Poster Session A
Gamaleldin Elsayed · Shreya Shankar · Brian Cheung · Nicolas Papernot · Alexey Kurakin · Ian Goodfellow · Jascha Sohl-Dickstein

A Simple Cache Model for Image Recognition

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #109
Poster – In Tue Poster Session A
Emin Orhan

Co-teaching: Robust training of deep neural networks with extremely noisy labels

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #110
Poster – In Tue Poster Session A
Bo Han · Quanming Yao · Xingrui Yu · Gang Niu · Miao Xu · Weihua Hu · Ivor Tsang · Masashi Sugiyama

Improved Network Robustness with Adversary Critic

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #111
Poster – In Tue Poster Session A
Alexander Matyasko · Lap-Pui Chau

Unsupervised Learning of Object Landmarks through Conditional Image Generation

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #112
 Poster – In Tue Poster Session A
 Tomas Jakab · Ankush Gupta · Hakan Bilen · Andrea Vedaldi

Multi-Task Learning as Multi-Objective Optimization

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #113
 Poster – In Tue Poster Session A
 Ozan Sener · Vladlen Koltun

Deep Anomaly Detection Using Geometric Transformations

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #114
 Poster – In Tue Poster Session A
 Izhak Golan · Ran El-Yaniv

Practical Deep Stereo (PDS): Toward applications-friendly deep stereo matching

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #115
 Poster – In Tue Poster Session A
 Stepan Tulyakov · Anton Ivanov · François Fleuret

VideoCapsuleNet: A Simplified Network for Action Detection

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #116
 Poster – In Tue Poster Session A
 Kevin Duarte · Yogesh Rawat · Mubarak Shah

With Friends Like These, Who Needs Adversaries?

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #117
 Poster – In Tue Poster Session A
 Saumya Jetley · Nicholas Lord · Philip Torr

Multi-Task Zipping via Layer-wise Neuron Sharing

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #118
 Poster – In Tue Poster Session A
 Xiaoxi He · Zimu Zhou · Lothar Thiele

Learning Versatile Filters for Efficient Convolutional Neural Networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #119
 Poster – In Tue Poster Session A
 Yunhe Wang · Chang Xu · Chunjing XU · Chao Xu · Dacheng Tao

Evolutionary Stochastic Gradient Descent for Optimization of Deep Neural Networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #120
 Poster – In Tue Poster Session A
 Xiaodong Cui · Wei Zhang · Zoltan Tóth · Michael Picheny

Structure-Aware Convolutional Neural Networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #121
 Poster – In Tue Poster Session A
 Jianlong Chang · Jie Gu · Lingfeng Wang · GAOFENG MENG · SHIMING XIANG · Chunhong Pan

Global Gated Mixture of Second-order Pooling for Improving Deep Convolutional Neural Networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #122
 Poster – In Tue Poster Session A
 Qilong Wang · Zilin Gao · Jiangtao Xie · Wangmeng Zuo · Peihua Li

Hybrid Macro/Micro Level Backpropagation for Training Deep Spiking Neural Networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #123
 Poster – In Tue Poster Session A
 Yingyezhe Jin · Wenrui Zhang · Peng Li

Deep Neural Nets with Interpolating Function as Output Activation

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #124
 Poster – In Tue Poster Session A
 Bao Wang · Xiyang Luo · Zhen Li · Wei Zhu · Zuoqiang Shi · Stanley Osher

Neural Edit Operations for Biological Sequences

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #125
 Poster – In Tue Poster Session A
 Satoshi Koide · Keisuke Kawano · Takuro Kutsuna

Improved Expressivity Through Dendritic Neural Networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #126
 Poster – In Tue Poster Session A
 Xundong Wu · Xiangwen Liu · wei li · qing wu

Neural Proximal Gradient Descent for Compressive Imaging

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #127
 Poster – In Tue Poster Session A
 Morteza Mardani · Qingyun Sun · David Donoho · Vardan Papayan · Hatef Monajemi · Shreyas Vasanawala · John Pauly

Sigsoftmax: Reanalysis of the Softmax Bottleneck

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #128
 Poster – In Tue Poster Session A
 Sekitoshi Kanai · Yasuhiro Fujiwara · Yuki Yamanaka · Shuichi Adachi

Visualizing the Loss Landscape of Neural Nets

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #129
 Poster – In Tue Poster Session A
 Hao Li · Zheng Xu · Gavin Taylor · Christoph Studer · Tom Goldstein

Clebsch-Gordan Nets: a Fully Fourier Space Spherical Convolutional Neural Network

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #130
 Poster – In Tue Poster Session A
 Risi Kondor · Zhen Lin · Shubhendu Trivedi

Adaptive Sampling Towards Fast Graph Representation Learning

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #131
 Poster – In Tue Poster Session A
 Wenbing Huang · Tong Zhang · Yu Rong · Junzhou Huang

NAIS-Net: Stable Deep Networks from Non-Autonomous Differential Equations

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #132
 Poster – In Tue Poster Session A
 Marco Ciccone · Marco Gallieri · Jonathan Masci · Christian Os-endorfer · Faustino Gomez

Scaling provable adversarial defenses

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #133
 Poster – In Tue Poster Session A
 Eric Wong · Frank Schmidt · Jan Hendrik Metzen · J. Zico Kolter

Lipschitz regularity of deep neural networks: analysis and efficient estimation

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #134
 Poster – In Tue Poster Session A
 Aladin Virmaux · Kevin Scaman

Training DNNs with Hybrid Block Floating Point

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #135
 Poster – In Tue Poster Session A
 Mario Drumond · Tao LIN · Martin Jaggi · Babak Falsafi

Mesh-TensorFlow: Deep Learning for Supercomputers

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #136
Poster – In Tue Poster Session A
Noam Shazeer · Youlong Cheng · Niki Parmar · Dustin Tran · Ashish Vaswani · Penporn Koanantakool · Peter Hawkins · HyounJoong Lee · Mingsheng Hong · Cliff Young · Ryan Sepassi · Blake Hechtman

Thwarting Adversarial Examples: An L_0 -Robust Sparse Fourier Transform

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #137
Poster – In Tue Poster Session A
Mitali Bafna · Jack Murtagh · Nikhil Vyas

Bayesian Adversarial Learning

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #138
Poster – In Tue Poster Session A
Nanyang Ye · Zhanxing Zhu

Dendritic cortical microcircuits approximate the backpropagation algorithm

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #139
Poster – In Tue Poster Session A
Jojo Sacramento · Rui Ponte Costa · Yoshua Bengio · Walter Senn

Learning a latent manifold of odor representations from neural responses in piriform cortex

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #140
Poster – In Tue Poster Session A
Anqi Wu · Stan Pashkovski · Sandeep Datta · Jonathan W Pillow

Size-Noise Tradeoffs in Generative Networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #141
Poster – In Tue Poster Session A
Bolton Bailey · Matus Telgarsky

On Neuronal Capacity

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #142
Poster – In Tue Poster Session A
Pierre Baldi · Roman Vershynin

Learning Overparameterized Neural Networks via Stochastic Gradient Descent on Structured Data

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #143
Poster – In Tue Poster Session A
Yuanzhi Li · Yingyu Liang

Deep, complex, invertible networks for inversion of transmission effects in multimode optical fibres

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #144
Poster – In Tue Poster Session A
Oisín Moran · Piergiorgio Caramazza · Daniele Faccio · Roderick Murray-Smith

Learning towards Minimum Hyperspherical Energy

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #145
Poster – In Tue Poster Session A
Weiyang Liu · Rongmei Lin · Zhen Liu · Lixin Liu · Zhiding Yu · Bo Dai · Le Song

Soft-Gated Warping-GAN for Pose-Guided Person Image Synthesis

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #146
Poster – In Tue Poster Session A
Haoye Dong · Xiaodan Liang · Ke Gong · Hanjiang Lai · Jia Zhu · Jian Yin

Deep Attentive Tracking via Reciprocal Learning

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #147
Poster – In Tue Poster Session A
Shi Pu · Yibing Song · Chao Ma · Honggang Zhang · Ming-Hsuan Yang

Robot Learning in Homes: Improving Generalization and Reducing Dataset Bias

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #148
Poster – In Tue Poster Session A
Abhinav Gupta · Adithyavairavan Murali · Dhiraj Prakashchand Gandhi · Lerrel Pinto

A flexible model for training action localization with varying levels of supervision

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #149
Poster – In Tue Poster Session A
Guilhem Chéron · Jean-Baptiste Alayrac · Ivan Laptev · Cordelia Schmid

Bilinear Attention Networks

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #150
Poster – In Tue Poster Session A
Jin-Hwa Kim · Jaehyun Jun · Byoung-Tak Zhang

MacNet: Transferring Knowledge from Machine Comprehension to Sequence-to-Sequence Models

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #151
Poster – In Tue Poster Session A
Boyuan Pan · Yazheng Yang · Hao Li · Zhou Zhao · Yueting Zhuang · Deng Cai · Xiaofei He

Diffusion Maps for Textual Network Embedding

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #152
Poster – In Tue Poster Session A
Xinyuan Zhang · Yitong Li · Dinghan Shen · Lawrence Carin

FRAGE: Frequency-Agnostic Word Representation

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #153
Poster – In Tue Poster Session A
Chengyue Gong · Di He · Xu Tan · Tao Qin · Liwei Wang · Tie-Yan Liu

A Retrieve-and-Edit Framework for Predicting Structured Outputs

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #154
Poster – In Tue Poster Session A
Tatsunori Hashimoto · Kelvin Guu · Yonatan Oren · Percy Liang

Unsupervised Text Style Transfer using Language Models as Discriminators

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #155
Poster – In Tue Poster Session A
Zichao Yang · Zhiting Hu · Chris Dyer · Eric Xing · Taylor Berg-Kirkpatrick

Unsupervised Cross-Modal Alignment of Speech and Text Embedding Spaces

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #156
Poster – In Tue Poster Session A
Yu-An Chung · Wei-Hung Weng · Schrasing Tong · James Glass

GradiVeQ: Vector Quantization for Bandwidth-Efficient Gradient Aggregation in Distributed CNN Training

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #157
Poster – In Tue Poster Session A
Mingchao Yu · Zhifeng Lin · Krishna Narra · Songze Li · Youjie Li · Nam Sung Kim · Alexander Schwing · Murali Annavaram · Salman Avestimehr

Gradient Sparsification for Communication-Efficient Distributed Optimization

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #158
Poster – In Tue Poster Session A
Jianqiao Wangni · Jiale Wang · Ji Liu · Tong Zhang

Bayesian multi-domain learning for cancer subtype discovery from next-generation sequencing count data

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #159
Poster – In Tue Poster Session A
Ehsan Hajiramezanali · Siamak Zamani Dadaneh · Alireza Karbalayghareh · Mingyuan Zhou · Xiaoning Qian

Parsimonious Quantile Regression of Financial Asset Tail Dynamics via Sequential Learning

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #160
Poster – In Tue Poster Session A
Xing Yan · Weizhong Zhang · Lin Ma · Wei Liu · Qi Wu

Global Geometry of Multichannel Sparse Blind Deconvolution on the Sphere

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #161
Poster – In Tue Poster Session A
YanJun Li · Yoram Bresler

Phase Retrieval Under a Generative Prior

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #162
Poster – In Tue Poster Session A
Paul Hand · Oscar Leong · Vlad Voroninski

Theoretical Linear Convergence of Unfolded ISTA and Its Practical Weights and Thresholds

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #163
Poster – In Tue Poster Session A
Xiaohan Chen · Jialin Liu · Zhangyang Wang · Wotao Yin

Modern Neural Networks Generalize on Small Data Sets

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #164
Poster – In Tue Poster Session A
Matthew Olson · Abraham Wyner · Richard Berk

Co-regularized Alignment for Unsupervised Domain Adaptation

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #165
Poster – In Tue Poster Session A
Abhishek Kumar · Prasanna Sattigeri · Kahini Wadhawan · Leonid Karlinsky · Rogerio Feris · Bill Freeman · Gregory Wornell

Neural Networks Trained to Solve Differential Equations Learn General Representations

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #166
Poster – In Tue Poster Session A
Martin Magill · Faisal Qureshi · Hendrick de Haan

Spectral Filtering for General Linear Dynamical Systems

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #167
Poster – In Tue Poster Session A
Elad Hazan · HOLDEN LEE · Karan Singh · Cyril Zhang · Yi Zhang

Where Do You Think You're Going?: Inferring Beliefs about Dynamics from Behavior

Tue Dec 4th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #168
Poster – In Tue Poster Session A
Sid Reddy · Anca Dragan · Sergey Levine

Lunch on your own

Tue Dec 4th 12:45 – 02:15 PM @
Break –

Lunch on your own

Tue Dec 4th 12:45 – 02:15 PM @
Break –

Inclusion and Diversity Town Hall

Tue Dec 4th 01:15 – 02:15 PM @ Room 517 CD
Break –

What Bodies Think About: Bioelectric Computation Outside the Nervous System, Primitive Cognition, and Synthetic Morphology

Tue Dec 4th 02:15 – 03:05 PM @ Rooms 220 CDE
Invited Talk – In Tue Invited Talk 2
Michael Levin

Coffee Break

Tue Dec 4th 03:05 – 03:30 PM @
Break –

In Tue Track 1 – Session 2

Tue Dec 4th 03:30 – 03:35 PM @ Room 220 CD – Tue Dec 4th 04:55 – 05:00 PM @ Room 220 CD

Neural Voice Cloning with a Few Samples

Tue Dec 4th 03:30 – 03:35 PM @ Room 220 CD
Spotlight – In Tue Track 1 – Session 2
Sercan Arik · Jitong Chen · Kainan Peng · Wei Ping · Yanqi Zhou
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #91

Answerer in Questioner's Mind: Information Theoretic Approach to Goal-Oriented Visual Dialog

Tue Dec 4th 03:35 – 03:40 PM @ Room 220 CD
Spotlight – In Tue Track 1 – Session 2
Sang-Woo Lee · Yu-Jung Heo · Byoung-Tak Zhang
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #95

Neural-Symbolic VQA: Disentangling Reasoning from Vision and Language Understanding

Tue Dec 4th 03:40 – 03:45 PM @ Room 220 CD
Spotlight – In Tue Track 1 – Session 2
Kexin Yi · Jiajun Wu · Chuang Gan · Antonio Torralba · Pushmeet Kohli · Josh Tenenbaum
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #21

Learning to Optimize Tensor Programs

Tue Dec 4th 03:45 – 03:50 PM @ Room 220 CD
Spotlight – In Tue Track 1 – Session 2
Tianqi Chen · Lianmin Zheng · Eddie Yan · Ziheng Jiang · Thierry Moreau · Luis Ceze · Carlos Guestrin · Arvind Krishnamurthy
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #104

Generalisation of structural knowledge in the hippocampal-entorhinal system

Tue Dec 4th 03:50 – 04:05 PM @ Room 220 CD
Oral – In Tue Track 1 – Session 2
James Whittington · Timothy Muller · Shirely Mark · Caswell Barry · Tim Behrens
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #19

A Likelihood-Free Inference Framework for Population Genetic Data using Exchangeable Neural Networks

Tue Dec 4th 04:05 – 04:10 PM @ Room 220 CD
Spotlight – In Tue Track 1 – Session 2
Jeffrey Chan · Valerio Perrone · Jeffrey Spence · Paul Jenkins · Sara Mathieson · Yun Song
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #111

Generalizing Tree Probability Estimation via Bayesian Networks

Tue Dec 4th 04:10 – 04:15 PM @ Room 220 CD
Spotlight – In Tue Track 1 – Session 2
Cheng Zhang · Frederick A Matsen IV
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #123

Geometry Based Data Generation

Tue Dec 4th 04:15 – 04:20 PM @ Room 220 CD
Spotlight – In Tue Track 1 – Session 2
Ofir Lindenbaum · Jay Stanley · Guy Wolf · Smita Krishnaswamy
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #121

Point process latent variable models of larval zebrafish behavior

Tue Dec 4th 04:20 – 04:25 PM @ Room 220 CD
 Spotlight – In Tue Track 1 – Session 2
 Anuj Sharma · Robert Johnson · Florian Engert · Scott Linderman
 Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB

A probabilistic population code based on neural samples

Tue Dec 4th 04:25 – 04:40 PM @ Room 220 CD
 Oral – In Tue Track 1 – Session 2
 Sabyasachi Shivkumar · Richard Lange · Ankani Chatteraj · Ralf
 Haefner
 Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #26

Sparse Attentive Backtracking: Temporal Credit Assignment Through Reminding

Tue Dec 4th 04:40 – 04:45 PM @ Room 220 CD
 Spotlight – In Tue Track 1 – Session 2
 Nan Rosemary Ke · Anirudh Goyal ALIAS PARTH GOYAL · Olexa
 Bilaniuk · Jonathan Binas · Michael Mozer · Chris Pal · Yoshua
 Bengio
 Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #23

Learning Temporal Point Processes via Reinforcement Learning

Tue Dec 4th 04:45 – 04:50 PM @ Room 220 CD
 Spotlight – In Tue Track 1 – Session 2
 Shuang Li · Shuai Xiao · Shixiang Zhu · Nan Du · Yao Xie · Le Song
 Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #124

Precision and Recall for Time Series

Tue Dec 4th 04:50 – 04:55 PM @ Room 220 CD
 Spotlight – In Tue Track 1 – Session 2
 Nesime Tatbul · Tae Jun Lee · Stan Zdonik · Mejbah Alam · Justin
 Gottschlich
 Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #116

Bayesian Nonparametric Spectral Estimation

Tue Dec 4th 04:55 – 05:00 PM @ Room 220 CD
 Spotlight – In Tue Track 1 – Session 2
 Felipe Tobar
 Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #114

In Tue Track 2 – Session 2

**Tue Dec 4th 03:30 – 03:35 PM @ Room 220 E – Tue Dec 4th
 04:55 – 05:00 PM @ Room 220 E**

Evolved Policy Gradients

Tue Dec 4th 03:30 – 03:35 PM @ Room 220 E
 Spotlight – In Tue Track 2 – Session 2
 Rein Houthoofd · Yuhua Chen · Phillip Isola · Bradly Stadie · Filip
 Wolski · OpenAI Jonathan Ho · Pieter Abbeel
 Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #16

Adapted Deep Embeddings: A Synthesis of Methods for k-Shot Inductive Transfer Learning

Tue Dec 4th 03:35 – 03:40 PM @ Room 220 E
 Spotlight – In Tue Track 2 – Session 2
 Tyler Scott · Karl Ridgeway · Michael Mozer
 Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #167

Bayesian Model-Agnostic Meta-Learning

Tue Dec 4th 03:40 – 03:45 PM @ Room 220 E
 Spotlight – In Tue Track 2 – Session 2
 Jaesik Yoon · Taesup Kim · Ousmane Dia · Sungwoong Kim · Yoshua
 Bengio · Sungjin Ahn
 Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #15

Probabilistic Neural Programmed Networks for Scene Generation

Tue Dec 4th 03:45 – 03:50 PM @ Room 220 E
 Spotlight – In Tue Track 2 – Session 2
 Zhiwei Deng · Jiacheng Chen · YIFANG FU · Greg Mori
 Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #7

Neural Ordinary Differential Equations

Tue Dec 4th 03:50 – 04:05 PM @ Room 220 E
 Oral – In Tue Track 2 – Session 2
 Tian Qi Chen · Yulia Rubanova · Jesse Bettencourt · David Duve-
 naud
 Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #3

Bias and Generalization in Deep Generative Models: An Empirical Study

Tue Dec 4th 04:05 – 04:10 PM @ Room 220 E
 Spotlight – In Tue Track 2 – Session 2
 Shengjia Zhao · Hongyu Ren · Arianna Yuan · Jiaming Song · Noah
 Goodman · Stefano Ermon
 Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #6

Robustness of conditional GANs to noisy labels

Tue Dec 4th 04:10 – 04:15 PM @ Room 220 E
 Spotlight – In Tue Track 2 – Session 2
 Kiran Thekumparampil · Ashish Khetan · Zinan Lin · Sewoong Oh
 Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #5

BourGAN: Generative Networks with Metric Embeddings

Tue Dec 4th 04:15 – 04:20 PM @ Room 220 E
 Spotlight – In Tue Track 2 – Session 2
 Chang Xiao · Peilin Zhong · Changxi Zheng
 Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #17

Loss Surfaces, Mode Connectivity, and Fast Ensembling of DNNs

Tue Dec 4th 04:20 – 04:25 PM @ Room 220 E
 Spotlight – In Tue Track 2 – Session 2
 Timur Garipov · Pavel Izmailov · Dmitrii Podoprikin · Dmitry
 Vetrov · Andrew Wilson
 Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #162

How Does Batch Normalization Help Optimization?

Tue Dec 4th 04:25 – 04:40 PM @ Room 220 E
 Oral – In Tue Track 2 – Session 2
 Shibani Santurkar · Dimitris Tsipras · Andrew Ilyas · Aleksander
 Madry
 Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #10

Training Neural Networks Using Features Replay

Tue Dec 4th 04:40 – 04:45 PM @ Room 220 E
 Spotlight – In Tue Track 2 – Session 2
 Zhouyuan Huo · Bin Gu · Heng Huang
 Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #12

Step Size Matters in Deep Learning

Tue Dec 4th 04:45 – 04:50 PM @ Room 220 E
 Spotlight – In Tue Track 2 – Session 2
 Kamil Nar · Shankar Sastry
 Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #8

Neural Tangent Kernel: Convergence and Generalization in Neural Networks

Tue Dec 4th 04:50 – 04:55 PM @ Room 220 E
 Spotlight – In Tue Track 2 – Session 2
 Arthur Jacot-Guillarmod · Clement Hongler · Franck Gabriel
 Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #9

Hierarchical Graph Representation Learning with Differentiable Pooling

Tue Dec 4th 04:55 – 05:00 PM @ Room 220 E
 Spotlight – In Tue Track 2 – Session 2
 Zhitao Ying · Jiaxuan You · Christopher Morris · Xiang Ren · Will
 Hamilton · Jure Leskovec
 Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #14

In Tue Track 3 – Session 2

Tue Dec 4th 03:30 – 03:35 PM @ Room 517 CD – Tue Dec 4th 04:55 – 05:00 PM @ Room 517 CD

Differentially Private Testing of Identity and Closeness of Discrete Distributions

Tue Dec 4th 03:30 – 03:35 PM @ Room 517 CD
Spotlight – In Tue Track 3 – Session 2
Jayadev Acharya · Ziteng Sun · Huanyu Zhang
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #151

Local Differential Privacy for Evolving Data

Tue Dec 4th 03:35 – 03:40 PM @ Room 517 CD
Spotlight – In Tue Track 3 – Session 2
Matthew Joseph · Aaron Roth · Jonathan Ullman · Bo Waggoner
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #153

Differentially Private k-Means with Constant Multiplicative Error

Tue Dec 4th 03:40 – 03:45 PM @ Room 517 CD
Spotlight – In Tue Track 3 – Session 2
Uri Stemmer · Haim Kaplan
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #152

A Spectral View of Adversarially Robust Features

Tue Dec 4th 03:45 – 03:50 PM @ Room 517 CD
Spotlight – In Tue Track 3 – Session 2
Shivam Garg · Vatsal Sharan · Brian Zhang · Gregory Valiant
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #156

Model-Agnostic Private Learning

Tue Dec 4th 03:50 – 04:05 PM @ Room 517 CD
Oral – In Tue Track 3 – Session 2
Raef Bassily · Abhradeep Guha Thakurta · Om Dipakbhai Thakkar
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #30

Bounded-Loss Private Prediction Markets

Tue Dec 4th 04:05 – 04:10 PM @ Room 517 CD
Spotlight – In Tue Track 3 – Session 2
Rafael Frongillo · Bo Waggoner
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #28

cpSGD: Communication-efficient and differentially-private distributed SGD

Tue Dec 4th 04:10 – 04:15 PM @ Room 517 CD
Spotlight – In Tue Track 3 – Session 2
Naman Agarwal · Ananda Theertha Suresh · Felix Xinnan Yu · Sanjiv Kumar · Brendan McMahan
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #27

Adversarially Robust Generalization Requires More Data

Tue Dec 4th 04:15 – 04:20 PM @ Room 517 CD
Spotlight – In Tue Track 3 – Session 2
Ludwig Schmidt · Shibani Santurkar · Dimitris Tsipras · Kunal Talwar · Aleksander Madry
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #31

Attacks Meet Interpretability: Attribute-steered Detection of Adversarial Samples

Tue Dec 4th 04:20 – 04:25 PM @ Room 517 CD
Spotlight – In Tue Track 3 – Session 2
Guanhong Tao · Shiqing Ma · Yingqi Liu · Xiangyu Zhang
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #99

Learning to Solve SMT Formulas

Tue Dec 4th 04:25 – 04:40 PM @ Room 517 CD
Oral – In Tue Track 3 – Session 2
Mislav Balunovic · Pavol Bielik · Martin Vechev
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #105

Towards Robust Detection of Adversarial Examples

Tue Dec 4th 04:40 – 04:45 PM @ Room 517 CD
Spotlight – In Tue Track 3 – Session 2
Tianyu Pang · Chao Du · Yinpeng Dong · Jun Zhu
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #11

Neural Architecture Search with Bayesian Optimisation and Optimal Transport

Tue Dec 4th 04:45 – 04:50 PM @ Room 517 CD
Spotlight – In Tue Track 3 – Session 2
Kirthivasan Kandasamy · Willie Neiswanger · Jeff Schneider · Barnabas Poczos · Eric Xing
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #166

Data-Driven Clustering via Parameterized Lloyd’s Families

Tue Dec 4th 04:50 – 04:55 PM @ Room 517 CD
Spotlight – In Tue Track 3 – Session 2
Maria-Florina Balcan · Travis Dick · Colin White
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #160

Supervising Unsupervised Learning

Tue Dec 4th 04:55 – 05:00 PM @ Room 517 CD
Spotlight – In Tue Track 3 – Session 2
Vikas Garg · Adam Kalai
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #164

In Tue Poster Session B

Point process latent variable models of larval zebrafish behavior

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB
Poster – In Tue Poster Session B
Anuj Sharma · Robert Johnson · Florian Engert · Scott Linderman

Provably Correct Automatic Sub-Differentiation for Qualified Programs

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #2
Poster – In Tue Poster Session B
Sham Kakade · Jason Lee

Neural Ordinary Differential Equations

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #3
Poster – In Tue Poster Session B
Tian Qi Chen · Yulia Rubanova · Jesse Bettencourt · David Duvenaud

Information Constraints on Auto-Encoding Variational Bayes

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #4
Poster – In Tue Poster Session B
Romain Lopez · Jeffrey Regier · Michael Jordan · Nir Yosef

Robustness of conditional GANs to noisy labels

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #5
Poster – In Tue Poster Session B
Kiran Thekumparampil · Ashish Khetan · Zinan Lin · Sewoong Oh

Bias and Generalization in Deep Generative Models: An Empirical Study

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #6
Poster – In Tue Poster Session B
Shengjia Zhao · Hongyu Ren · Arianna Yuan · Jiaming Song · Noah Goodman · Stefano Ermon

Probabilistic Neural Programmed Networks for Scene Generation

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #7
Poster – In Tue Poster Session B
Zhiwei Deng · Jiacheng Chen · YIFANG FU · Greg Mori

Step Size Matters in Deep Learning

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #8

Poster – In Tue Poster Session B

Kamil Nar · Shankar Sastry

Neural Tangent Kernel: Convergence and Generalization in Neural Networks

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #9

Poster – In Tue Poster Session B

Arthur Jacot-Guillarmod · Clement Hongler · Franck Gabriel

How Does Batch Normalization Help Optimization?

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #10

Poster – In Tue Poster Session B

Shibani Santurkar · Dimitris Tsipras · Andrew Ilyas · Aleksander Madry

Towards Robust Detection of Adversarial Examples

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #11

Poster – In Tue Poster Session B

Tianyu Pang · Chao Du · Yinpeng Dong · Jun Zhu

Training Neural Networks Using Features Replay

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #12

Poster – In Tue Poster Session B

Zhouyuan Huo · Bin Gu · Heng Huang

Faster Neural Networks Straight from JPEG

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #13

Poster – In Tue Poster Session B

Lionel Gueguen · Alex Sergeev · Ben Kadlec · Rosanne Liu · Jason Yosinski

Hierarchical Graph Representation Learning with Differentiable Pooling

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #14

Poster – In Tue Poster Session B

Zhitao Ying · Jiaxuan You · Christopher Morris · Xiang Ren · Will Hamilton · Jure Leskovec

Bayesian Model-Agnostic Meta-Learning

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #15

Poster – In Tue Poster Session B

Jaesik Yoon · Taesup Kim · Ousmane Dia · Sungwoong Kim · Yoshua Bengio · Sungjin Ahn

Evolved Policy Gradients

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #16

Poster – In Tue Poster Session B

Rein Houthoofd · Yuhua Chen · Phillip Isola · Bradly Stadie · Filip Wolski · OpenAI Jonathan Ho · Pieter Abbeel

BourGAN: Generative Networks with Metric Embeddings

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #17

Poster – In Tue Poster Session B

Chang Xiao · Peilin Zhong · Changxi Zheng

Scalable End-to-End Autonomous Vehicle Testing via Rare-event Simulation

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #18

Poster – In Tue Poster Session B

Matthew O’Kelly · Aman Sinha · Hongseok Namkoong · Russ Tedrake · John Duchi

Generalisation of structural knowledge in the hippocampal-entorhinal system

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #19

Poster – In Tue Poster Session B

James Whittington · Timothy Muller · Shirely Mark · Caswell Barry · Tim Behrens

Task-Driven Convolutional Recurrent Models of the Visual System

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #20

Poster – In Tue Poster Session B

Aran Nayebi · Daniel Bear · Jonas Kubilius · Kohitij Kar · Surya Ganguli · David Sussillo · James J DiCarlo · Daniel Yamins

Neural-Symbolic VQA: Disentangling Reasoning from Vision and Language Understanding

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #21

Poster – In Tue Poster Session B

Kexin Yi · Jiajun Wu · Chuang Gan · Antonio Torralba · Pushmeet Kohli · Josh Tenenbaum

Extracting Relationships by Multi-Domain Matching

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #22

Poster – In Tue Poster Session B

Yitong Li · michael Murias · geraldine Dawson · David Carlson

Sparse Attentive Backtracking: Temporal Credit Assignment Through Reminding

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #23

Poster – In Tue Poster Session B

Nan Rosemary Ke · Anirudh Goyal ALIAS PARTH GOYAL · Olexa Bilaniuk · Jonathan Binas · Michael Mozer · Chris Pal · Yoshua Bengio

Beauty-in-averageness and its contextual modulations: A Bayesian statistical account

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #24

Poster – In Tue Poster Session B

Chaitanya Ryali · Angela J Yu

Stimulus domain transfer in recurrent models for large scale cortical population prediction on video

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #25

Poster – In Tue Poster Session B

Fabian Sinz · Alexander Ecker · Paul Fahey · Edgar Walker · Er-ick Cobos · Emmanouil Froudarakis · Dimitri Yatsenko · Zachary Pitkow · Jacob Reimer · Andreas Tolias

A probabilistic population code based on neural samples

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #26

Poster – In Tue Poster Session B

Sabyasachi Shivkumar · Richard Lange · Ankani Chattoraj · Ralf Haefner

cpSGD: Communication-efficient and differentially-private distributed SGD

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #27

Poster – In Tue Poster Session B

Naman Agarwal · Ananda Theertha Suresh · Felix Xinnan Yu · Sanjiv Kumar · Brendan McMahan

Bounded-Loss Private Prediction Markets

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #28

Poster – In Tue Poster Session B

Rafael Frongillo · Bo Waggoner

Ex ante coordination and collusion in zero-sum multi-player extensive-form games

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #29

Poster – In Tue Poster Session B

Gabriele Farina · Andrea Celli · Nicola Gatti · Tuomas Sandholm

Model-Agnostic Private Learning

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #30

Poster – In Tue Poster Session B

Raef Bassily · Abhradeep Guha Thakurta · Om Dipakbhai Thakkar

Adversarially Robust Generalization Requires More Data

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #31
Poster – In Tue Poster Session B
Ludwig Schmidt · Shibani Santurkar · Dimitris Tsipras · Kunal Talwar · Aleksander Madry

Bayesian Pose Graph Optimization via Bingham Distributions and Tempered Geodesic MCMC

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #32
Poster – In Tue Poster Session B
Tolga Birdal · Umut Simsekli · Mustafa Onur Eken · Slobodan Ilic

A Statistical Recurrent Model on the Manifold of Symmetric Positive Definite Matrices

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #33
Poster – In Tue Poster Session B
Rudrasis Chakraborty · Chun-Hao Yang · Xingjian Zhen · Monami Banerjee · Derek Archer · David Vaillancourt · Vikas Singh · Baba Vemuri

Designing by Training: Acceleration Neural Network for Fast High-Dimensional Convolution

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #34
Poster – In Tue Poster Session B
Longquan Dai · Liang Tang · Yuan Xie · Jinhui Tang

Greedy Hash: Towards Fast Optimization for Accurate Hash Coding in CNN

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #35
Poster – In Tue Poster Session B
Shupeng Su · Chao Zhang · Kai Han · Yonghong Tian

Generative Probabilistic Novelty Detection with Adversarial Autoencoders

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #36
Poster – In Tue Poster Session B
Stanislav Pidhorskyi · Ranya Almohsen · Gianfranco Doretto

Joint Sub-bands Learning with Clique Structures for Wavelet Domain Super-Resolution

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #37
Poster – In Tue Poster Session B
Zhisheng Zhong · Tiancheng Shen · Yibo Yang · Zhouchen Lin · Chao Zhang

Compact Generalized Non-local Network

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #38
Poster – In Tue Poster Session B
Kaiyu Yue · Ming Sun · Yuchen Yuan · Feng Zhou · Errui Ding · Fuxin Xu

BinGAN: Learning Compact Binary Descriptors with a Regularized GAN

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #39
Poster – In Tue Poster Session B
Maciej Zieba · Piotr Semberecki · Tarek El-Gaaly · Tomasz Trzcinski

RenderNet: A deep convolutional network for differentiable rendering from 3D shapes

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #40
Poster – In Tue Poster Session B
Thu H Nguyen-Phuoc · Chuan Li · Stephen Balaban · Yongliang Yang

LF-Net: Learning Local Features from Images

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #41
Poster – In Tue Poster Session B
Yuki Ono · Eduard Trulls · Pascal Fua · Kwang Moo Yi

Unsupervised Learning of Shape and Pose with Differentiable Point Clouds

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #42
Poster – In Tue Poster Session B
Eldar Insafutdinov · Alexey Dosovitskiy

Modelling and unsupervised learning of symmetric deformable object categories

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #43
Poster – In Tue Poster Session B
James Thewlis · Hakan Bilen · Andrea Vedaldi

Multi-View Silhouette and Depth Decomposition for High Resolution 3D Object Representation

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #44
Poster – In Tue Poster Session B
Edward Smith · Scott Fujimoto · David Meger

Image Inpainting via Generative Multi-column Convolutional Neural Networks

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #45
Poster – In Tue Poster Session B
Yi Wang · Xin Tao · Xiaojuan Qi · Xiaoyong Shen · Jiaya Jia

Beyond Grids: Learning Graph Representations for Visual Recognition

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #46
Poster – In Tue Poster Session B
Yin Li · Abhinav Gupta

Foreground Clustering for Joint Segmentation and Localization in Videos and Images

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #47
Poster – In Tue Poster Session B
Abhishek Sharma

LinkNet: Relational Embedding for Scene Graph

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #48
Poster – In Tue Poster Session B
Sanghyun Woo · Dahun Kim · Donghyeon Cho · In So Kweon

Context-aware Synthesis and Placement of Object Instances

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #49
Poster – In Tue Poster Session B
Donghoon Lee · Ming-Yu Liu · Ming-Hsuan Yang · Sifei Liu · Jinwei Gu · Jan Kautz

Geometry-Aware Recurrent Neural Networks for Active Visual Recognition

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #50
Poster – In Tue Poster Session B
Ricson Cheng · Ziyang Wang · Katerina Fragkiadaki

See and Think: Disentangling Semantic Scene Completion

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #51
Poster – In Tue Poster Session B
Shice Liu · YU HU · Yiming Zeng · Qiankun Tang · Beibei Jin · Yinhe Han · Xiaowei Li

Active Matting

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #52
Poster – In Tue Poster Session B
Xin Yang · Ke Xu · Shaozhe Chen · Shengfeng He · Baocai Yin Yin · Rynson Lau

A Unified Feature Disentangler for Multi-Domain Image Translation and Manipulation

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #53
Poster – In Tue Poster Session B
Alexander H. Liu · Yen-Cheng Liu · Yu-Ying Yeh · Yu-Chiang Frank Wang

Turbo Learning for CaptionBot and DrawingBot

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #54
Poster – In Tue Poster Session B
Qiuyuan Huang · Pengchuan Zhang · Dapeng Wu · Lei Zhang

Dialog-based Interactive Image Retrieval

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #55
Poster – In Tue Poster Session B
Xiaoxiao Guo · Hui Wu · Yu Cheng · Steven Rennie · Gerald Tesauro · Rogerio Feris

Hybrid Retrieval-Generation Reinforced Agent for Medical Image Report Generation

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #56
Poster – In Tue Poster Session B
Yuan Li · Xiaodan Liang · Zhiting Hu · Eric Xing

Sequential Context Encoding for Duplicate Removal

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #57
Poster – In Tue Poster Session B
Lu Qi · Shu Liu · Jianping Shi · Jiaya Jia

Hybrid Knowledge Routed Modules for Large-scale Object Detection

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #58
Poster – In Tue Poster Session B
ChenHan Jiang · Hang Xu · Xiaodan Liang · Liang Lin

SNIPER: Efficient Multi-Scale Training

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #59
Poster – In Tue Poster Session B
Bharat Singh · Mahyar Najibi · Larry Davis

Revisiting Multi-Task Learning with ROCK: a Deep Residual Auxiliary Block for Visual Detection

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #60
Poster – In Tue Poster Session B
Taylor Mordan · Nicolas THOME · Gilles Henaff · Matthieu Cord

MetaAnchor: Learning to Detect Objects with Customized Anchors

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #61
Poster – In Tue Poster Session B
Tong Yang · Xiangyu Zhang · Zeming Li · Wenqiang Zhang · Jian Sun

Learning Hierarchical Semantic Image Manipulation through Structured Representations

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB
Poster – In Tue Poster Session B
Seunghoon Hong · Xinchun Yan · Thomas Huang · Honglak Lee

Cooperative Holistic Scene Understanding: Unifying 3D Object, Layout, and Camera Pose Estimation

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #63
Poster – In Tue Poster Session B
Siyuan Huang · Siyuan Qi · Yinxue Xiao · Yixin Zhu · Ying Nian Wu · Song-Chun Zhu

3D-Aware Scene Manipulation via Inverse Graphics

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #64
Poster – In Tue Poster Session B
Shunyu Yao · Tzu Ming Hsu · Jun-Yan Zhu · Jiajun Wu · Antonio Torralba · Bill Freeman · Josh Tenenbaum

FD-GAN: Pose-guided Feature Distilling GAN for Robust Person Re-identification

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #65
Poster – In Tue Poster Session B
Yixiao Ge · Zhuowan Li · Haiyu Zhao · Guojun Yin · Shuai Yi · Xiaogang Wang · hongsheng Li

Sequence-to-Segment Networks for Segment Detection

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #66
Poster – In Tue Poster Session B
Zijun Wei · Boyu Wang · Minh Hoai Nguyen · Jianming Zhang · Zhe Lin · Xiaohui Shen · Radomir Mech · Dimitris Samaras

Stacked Semantics-Guided Attention Model for Fine-Grained Zero-Shot Learning

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #67
Poster – In Tue Poster Session B
yunlong yu · Zhong Ji · Yanwei Fu · Jichang Guo · Yanwei Pang · Zhongfei (Mark) Zhang

DeepExposure: Learning to Expose Photos with Asynchronously Reinforced Adversarial Learning

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #68
Poster – In Tue Poster Session B
Runsheng Yu · Wenyu Liu · Yansen Zhang · Zhi Qu · Deli Zhao · Bo Zhang

Self-Erasing Network for Integral Object Attention

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #69
Poster – In Tue Poster Session B
Qibin Hou · PengTao Jiang · Yunchao Wei · Ming-Ming Cheng

Searching for Efficient Multi-Scale Architectures for Dense Image Prediction

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #70
Poster – In Tue Poster Session B
Maxwell Collins · Maxwell Collins · Yukun Zhu · George Papandreou · Barret Zoph · Florian Schroff · Bo Chen · Jon Shlens

DifNet: Semantic Segmentation by Diffusion Networks

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #71
Poster – In Tue Poster Session B
Peng Jiang · Fanglin Gu · Yunhai Wang · Changhe Tu · Baoquan Chen

Learning a High Fidelity Pose Invariant Model for High-resolution Face Frontalization

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #72
Poster – In Tue Poster Session B
Jie Cao · Yibo Hu · Hongwen Zhang · Ran He · Zhenan Sun

Attention in Convolutional LSTM for Gesture Recognition

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #73
Poster – In Tue Poster Session B
Liang Zhang · Guangming Zhu · Lin Mei · Peiyi Shen · Syed Afaq Ali Shah · Mohammed Bennis

Partially-Supervised Image Captioning

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #74
Poster – In Tue Poster Session B
Peter Anderson · Stephen Gould · Mark Johnson

Learning to Specialize with Knowledge Distillation for Visual Question Answering

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #75
Poster – In Tue Poster Session B
Jonghwan Mun · Kimin Lee · Jinwoo Shin · Bohyung Han

Chain of Reasoning for Visual Question Answering

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #76
Poster – In Tue Poster Session B
Chenfei Wu · Jinlai Liu · Xiaojie Wang · Xuan Dong

Learning Conditioned Graph Structures for Interpretable Visual Question Answering

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #77
Poster – In Tue Poster Session B
Will Norcliffe-Brown · Stathis Vafeias · Sarah Parisot

Out of the Box: Reasoning with Graph Convolution Nets for Factual Visual Question Answering

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #78
Poster – In Tue Poster Session B
Medhini Narasimhan · Svetlana Lazebnik · Alexander Schwing

Overcoming Language Priors in Visual Question Answering with Adversarial Regularization

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #79
Poster – In Tue Poster Session B
Sainandan Ramakrishnan · Aishwarya Agrawal · Stefan Lee

Non-Local Recurrent Network for Image Restoration

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #80
Poster – In Tue Poster Session B
Ding Liu · Bihan Wen · Yuchen Fan · Chen Change Loy · Thomas Huang

Neural Nearest Neighbors Networks

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #81
Poster – In Tue Poster Session B
Tobias Pfister · Stefan Roth

Training deep learning based denoisers without ground truth data

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #82
Poster – In Tue Poster Session B
Shakir Soltanayev · Se Young Chun

Adversarial Regularizers in Inverse Problems

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #83
Poster – In Tue Poster Session B
Sebastian Lunz · Carola Schoenlieb · Ozan Oktay

Densely Connected Attention Propagation for Reading Comprehension

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #84
Poster – In Tue Poster Session B
Yi Tay · Anh Tuan Luu · Siu Cheung Hui · Jian Su

Layer-Wise Coordination between Encoder and Decoder for Neural Machine Translation

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #85
Poster – In Tue Poster Session B
Tianyu He · Xu Tan · Yingce Xia · Di He · Tao Qin · Zhibo Chen · Tie-Yan Liu

e-SNLI: Natural Language Inference with Natural Language Explanations

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #86
Poster – In Tue Poster Session B
Oana-Maria Camburu · Tim Rocktschel · Thomas Lukasiewicz · Phil Blunsom

The challenge of realistic music generation: modelling raw audio at scale

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #87
Poster – In Tue Poster Session B
Sander Dieleman · Aaron van den Oord · Karen Simonyan

Fully Neural Network Based Speech Recognition on Mobile and Embedded Devices

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #88
Poster – In Tue Poster Session B
Jinhwan Park · Yoonho Boo · Iksoo Choi · Sungho Shin · Wonyong Sung

Transfer Learning from Speaker Verification to Multispeaker Text-To-Speech Synthesis

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #89

Poster – In Tue Poster Session B
Ye Jia · Yu Zhang · Ron Weiss · Quan Wang · Jonathan Shen · Fei Ren · Zhifeng Chen · Patrick Nguyen · Ruoming Pang · Ignacio Lopez Moreno · Yonghui Wu

SING: Symbol-to-Instrument Neural Generator

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #90
Poster – In Tue Poster Session B
Alexandre Defossez · Neil Zeghidour · Nicolas Usunier · Leon Bottou · Francis Bach

Neural Voice Cloning with a Few Samples

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #91
Poster – In Tue Poster Session B
Sercan Arikan · Jitong Chen · Kainan Peng · Wei Ping · Yanqi Zhou

GroupReduce: Block-Wise Low-Rank Approximation for Neural Language Model Shrinking

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #92
Poster – In Tue Poster Session B
Patrick Chen · Si Si · Yang Li · Ciprian Chelba · Cho-Jui Hsieh

Dialog-to-Action: Conversational Question Answering Over a Large-Scale Knowledge Base

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #93
Poster – In Tue Poster Session B
Daya Guo · Duyu Tang · Nan Duan · Ming Zhou · Jian Yin

Generating Informative and Diverse Conversational Responses via Adversarial Information Maximization

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #94
Poster – In Tue Poster Session B
Yizhe Zhang · Michel Galley · Jianfeng Gao · Zhe Gan · Xiumun Li · Chris Brockett · Bill Dolan

Answerer in Questioner's Mind: Information Theoretic Approach to Goal-Oriented Visual Dialog

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #95
Poster – In Tue Poster Session B
Sang-Woo Lee · Yu-Jung Heo · Byoung-Tak Zhang

Trajectory Convolution for Action Recognition

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #96
Poster – In Tue Poster Session B
Yue Zhao · Guneet Singh Dhillon · Dahua Lin

Video Prediction via Selective Sampling

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #97
Poster – In Tue Poster Session B
Jingwei Xu · Bingbing Ni · Xiaokang Yang

Unsupervised Learning of Artistic Styles with Archetypal Style Analysis

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #98
Poster – In Tue Poster Session B
Daan Wuytack · Cordelia Schmid · Julien Mairal

Attacks Meet Interpretability: Attribute-steered Detection of Adversarial Samples

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #99
Poster – In Tue Poster Session B
Guanhong Tao · Shiqing Ma · Yingqi Liu · Xiangyu Zhang

Speaker-Follower Models for Vision-and-Language Navigation

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #100
Poster – In Tue Poster Session B
Daniel Fried · Ronghang Hu · Volkan Cirik · Anna Rohrbach · Jacob Andreas · Louis-Philippe Morency · Taylor Berg-Kirkpatrick · Kate Saenko · Dan Klein · Trevor Darrell

Neural Code Comprehension: A Learnable Representation of Code Semantics

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #101
Poster – In Tue Poster Session B
Tal Ben-Nun · Alice Shoshana Jakobovits · Torsten Hoefer

MiME: Multilevel Medical Embedding of Electronic Health Records for Predictive Healthcare

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #102
Poster – In Tue Poster Session B
Edward Choi · Cao Xiao · Walter Stewart · Jimeng Sun

Distilled Wasserstein Learning for Word Embedding and Topic Modeling

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #103
Poster – In Tue Poster Session B
Hongteng Xu · Wenlin Wang · Wei Liu · Lawrence Carin

Learning to Optimize Tensor Programs

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #104
Poster – In Tue Poster Session B
Tianqi Chen · Lianmin Zheng · Eddie Yan · Ziheng Jiang · Thierry Moreau · Luis Ceze · Carlos Guestrin · Arvind Krishnamurthy

Learning to Solve SMT Formulas

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #105
Poster – In Tue Poster Session B
Mislav Balunovic · Pavol Bielik · Martin Vechev

Data center cooling using model-predictive control

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #106
Poster – In Tue Poster Session B
Nevena Lazic · Craig Boutilier · Tyler Lu · Eehern Wong · Binz Roy · MK Ryu · Greg Imwalle

Bayesian Inference of Temporal Task Specifications from Demonstrations

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #107
Poster – In Tue Poster Session B
Ankit Shah · Pritish Kamath · Julie A Shah · Shen Li

Training Deep Neural Networks with 8-bit Floating Point Numbers

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #108
Poster – In Tue Poster Session B
Naigang Wang · Jungwook Choi · Daniel Brand · Chia-Yu Chen · Kailash Gopalakrishnan

Snap ML: A Hierarchical Framework for Machine Learning

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #109
Poster – In Tue Poster Session B
Celestine D'Ánner · Thomas Parnell · Dimitrios Sarigiannis · Nikolas Ioannou · Andreea Anghel · Gummadi Ravi · Madhusudan Kanadasamy · Haralampos Pozidis

Learning filter widths of spectral decompositions with wavelets

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #110
Poster – In Tue Poster Session B
Haidar Khan · Bulent Yener

A Likelihood-Free Inference Framework for Population Genetic Data using Exchangeable Neural Networks

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #111
Poster – In Tue Poster Session B
Jeffrey Chan · Valerio Perrone · Jeffrey Spence · Paul Jenkins · Sara Mathieson · Yun Song

Latent Gaussian Activity Propagation: Using Smoothness and Structure to Separate and Localize Sounds in Large Noisy Environments

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #112
Poster – In Tue Poster Session B
Daniel Johnson · Daniel Gorelik · Ross E Mawhorter · Kyle Suver · Weiqing Gu · Steven Xing · Cody Gabriel · Peter Sankhagowit

Inferring Latent Velocities from Weather Radar Data using Gaussian Processes

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #113
Poster – In Tue Poster Session B
Rico Angell · Daniel Sheldon

Bayesian Nonparametric Spectral Estimation

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #114
Poster – In Tue Poster Session B
Felipe Tobar

Learning a Warping Distance from Unlabeled Time Series Using Sequence Autoencoders

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #115
Poster – In Tue Poster Session B
Abubakar Abid · James Zou

Precision and Recall for Time Series

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #116
Poster – In Tue Poster Session B
Nesime Tatbul · Tae Jun Lee · Stan Zdonik · Mejbah Alam · Justin Gottschlich

Deep Generative Markov State Models

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #117
Poster – In Tue Poster Session B
Hao Wu · Andreas Mardt · Luca Pasquali · Frank Noe

Doubly Robust Bayesian Inference for Non-Stationary Streaming Data with β -Divergences

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #118
Poster – In Tue Poster Session B
Jeremias Knoblauch · Jack E Jewson · Theodoros Damoulas

Regularization Learning Networks: Deep Learning for Tabular Datasets

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #119
Poster – In Tue Poster Session B
Ira Shavitt · Eran Segal

Generative modeling for protein structures

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #120
Poster – In Tue Poster Session B
Namrata Anand · Possu Huang

Geometry Based Data Generation

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #121
Poster – In Tue Poster Session B
Ofir Lindenbaum · Jay Stanley · Guy Wolf · Smita Krishnaswamy

Learning Concave Conditional Likelihood Models for Improved Analysis of Tandem Mass Spectra

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #122
Poster – In Tue Poster Session B
John T Halloran · David M Rocke

Generalizing Tree Probability Estimation via Bayesian Networks

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #123
Poster – In Tue Poster Session B
Cheng Zhang · Frederick A Matsen IV

Learning Temporal Point Processes via Reinforcement Learning

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #124
Poster – In Tue Poster Session B
Shuang Li · Shuai Xiao · Shixiang Zhu · Nan Du · Yao Xie · Le Song

Exponentially Weighted Imitation Learning for Batched Historical Data

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #125
Poster – In Tue Poster Session B
Qing Wang · Jiechao Xiong · Lei Han · peng sun · Han Liu · Tong Zhang

Evidential Deep Learning to Quantify Classification Uncertainty

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #126
Poster – In Tue Poster Session B
Murat Sensoy · Lance Kaplan · Melih Kandemir

Explanations based on the Missing: Towards Contrastive Explanations with Pertinent Negatives

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #127
Poster – In Tue Poster Session B
Amit Dhurandhar · Pin-Yu Chen · Ronny Luss · Chun-Chen Tu · Paishun Ting · Karthikeyan Shanmugam · Payel Das

Towards Robust Interpretability with Self-Explaining Neural Networks

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #128
Poster – In Tue Poster Session B
David Alvarez Melis · Tommi Jaakkola

Model Agnostic Supervised Local Explanations

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #129
Poster – In Tue Poster Session B
Gregory Plumb · Denali Molitor · Ameet Talwalkar

To Trust Or Not To Trust A Classifier

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #130
Poster – In Tue Poster Session B
Heinrich Jiang · Been Kim · Melody Guan · Maya Gupta

Predict Responsibly: Improving Fairness and Accuracy by Learning to Defer

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #131
Poster – In Tue Poster Session B
David Madras · Toni Pitassi · Richard Zemel

Hunting for Discriminatory Proxies in Linear Regression Models

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #132
Poster – In Tue Poster Session B
Samuel Yeom · Anupam Datta · Matt Fredrikson

Empirical Risk Minimization Under Fairness Constraints

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #133
Poster – In Tue Poster Session B
Michele Donini · Luca Oneto · Shai Ben-David · John Shawe-Taylor · Massimiliano Pontil

Approximation algorithms for stochastic clustering

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #134
Poster – In Tue Poster Session B
David Harris · Shi Li · Aravind Srinivasan · Khoa Trinh · Thomas Pensyl

Re-evaluating evaluation

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #135
Poster – In Tue Poster Session B
David Balduzzi · Karl Tuyls · Julien Perolat · Thore Graepel

Does mitigating ML's impact disparity require treatment disparity?

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #136
Poster – In Tue Poster Session B
Zachary Lipton · Julian McAuley · Alexandra Chouldechova

Enhancing the Accuracy and Fairness of Human Decision Making

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #137
Poster – In Tue Poster Session B
Isabel Valera · Adish Singla · Manuel Gomez Rodriguez

The Price of Fair PCA: One Extra dimension

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #138
Poster – In Tue Poster Session B
Samira Samadi · Uthaipon Tantipongpipat · Jamie Morgenstern · Mohit Singh · Santosh Vempala

Practical Methods for Graph Two-Sample Testing

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #139
Poster – In Tue Poster Session B
Debarghya Ghoshdastidar · Ulrike von Luxburg

Topkapi: Parallel and Fast Sketches for Finding Top-K Frequent Elements

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #140
Poster – In Tue Poster Session B
Ankush Mandal · He Jiang · Anshumali Shrivastava · Vivek Sarkar

KDGAN: Knowledge Distillation with Generative Adversarial Networks

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #141
Poster – In Tue Poster Session B
Xiaojie Wang · Rui Zhang · Yu Sun · Jianzhong Qi

Modeling Dynamic Missingness of Implicit Feedback for Recommendation

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #142
Poster – In Tue Poster Session B
Menghan Wang · Mingming Gong · Xiaolin Zheng · Kun Zhang

Gamma-Poisson Dynamic Matrix Factorization Embedded with Metadata Influence

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #143
Poster – In Tue Poster Session B
Trong Dinh Thac Do · Longbing Cao

Non-metric Similarity Graphs for Maximum Inner Product Search

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #144
Poster – In Tue Poster Session B
Stanislav Morozov · Artem Babenko

Norm-Ranging LSH for Maximum Inner Product Search

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #145
Poster – In Tue Poster Session B
Xiao Yan · Jinfeng Li · Xinyan Dai · Hongzhi Chen · James Cheng

A Dual Framework for Low-rank Tensor Completion

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #146
Poster – In Tue Poster Session B
Madhav Nimishakavi · Pratik Kumar Jawanpuria · Bamdev Mishra

Low-Rank Tucker Decomposition of Large Tensors Using TensorSketch

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #147
Poster – In Tue Poster Session B
Osman Asif Malik · Stephen Becker

Dropping Symmetry for Fast Symmetric Nonnegative Matrix Factorization

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #148
Poster – In Tue Poster Session B
Zhihui Zhu · Xiao Li · Kai Liu · Qiuwei Li

Semidefinite relaxations for certifying robustness to adversarial examples

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #149
Poster – In Tue Poster Session B
Aditi Raghunathan · Jacob Steinhardt · Percy Liang

Privacy Amplification by Subsampling: Tight Analyses via Couplings and Divergences

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #150
 Poster – In Tue Poster Session B
 Borja Balle · Gilles Barthe · Marco Gaboardi

Differentially Private Testing of Identity and Closeness of Discrete Distributions

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #151
 Poster – In Tue Poster Session B
 Jayadev Acharya · Ziteng Sun · Huanyu Zhang

Differentially Private k-Means with Constant Multiplicative Error

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #152
 Poster – In Tue Poster Session B
 Uri Stemmer · Haim Kaplan

Local Differential Privacy for Evolving Data

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #153
 Poster – In Tue Poster Session B
 Matthew Joseph · Aaron Roth · Jonathan Ullman · Bo Waggoner

Adversarial Attacks on Stochastic Bandits

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #154
 Poster – In Tue Poster Session B
 Kwang-Sung Jun · Lihong Li · Yuzhe Ma · Jerry Zhu

Distributed Learning without Distress: Privacy-Preserving Empirical Risk Minimization

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #155
 Poster – In Tue Poster Session B
 Bargav Jayaraman · Lingxiao Wang · David Evans · Quanquan Gu

A Spectral View of Adversarially Robust Features

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #156
 Poster – In Tue Poster Session B
 Shivam Garg · Vatsal Sharan · Brian Zhang · Gregory Valiant

Efficient Formal Safety Analysis of Neural Networks

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #157
 Poster – In Tue Poster Session B
 Shiqi Wang · Kexin Pei · Justin Whitehouse · Junfeng Yang · Suman Jana

Contamination Attacks and Mitigation in Multi-Party Machine Learning

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #158
 Poster – In Tue Poster Session B
 Jamie Hayes · Olga Ohrimenko

Explaining Deep Learning Models -- A Bayesian Non-parametric Approach

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #159
 Poster – In Tue Poster Session B
 Wenbo Guo · Sui Huang · Yunzhe Tao · Xinyu Xing · Lin Lin

Data-Driven Clustering via Parameterized Lloyd's Families

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #160
 Poster – In Tue Poster Session B
 Maria-Florina Balcan · Travis Dick · Colin White

Manifold Structured Prediction

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #161
 Poster – In Tue Poster Session B
 Alessandro Rudi · Carlo Ciliberto · GianMaria Marconi · Lorenzo Rosasco

Loss Surfaces, Mode Connectivity, and Fast Ensembling of DNNs

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #162

Poster – In Tue Poster Session B
 Timur Garipov · Pavel Izmailov · Dmitrii Podoprikin · Dmitry Vetrov · Andrew Wilson

Masking: A New Perspective of Noisy Supervision

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #163

Poster – In Tue Poster Session B
 Bo Han · Jiangchao Yao · Gang Niu · Mingyuan Zhou · Ivor Tsang · Ya Zhang · Masashi Sugiyama

Supervising Unsupervised Learning

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #164

Poster – In Tue Poster Session B
 Vikas Garg · Adam Kalai

One-Shot Unsupervised Cross Domain Translation

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #165

Poster – In Tue Poster Session B
 Sagie Benaim · Lior Wolf

Neural Architecture Search with Bayesian Optimisation and Optimal Transport

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #166

Poster – In Tue Poster Session B
 Kirthevasan Kandasamy · Willie Neiswanger · Jeff Schneider · Barnabas Poczos · Eric Xing

Adapted Deep Embeddings: A Synthesis of Methods for k-Shot Inductive Transfer Learning

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #167

Poster – In Tue Poster Session B
 Tyler Scott · Karl Ridgeway · Michael Mozer

Completing State Representations using Spectral Learning

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #168

Poster – In Tue Poster Session B
 Nan Jiang · Alex Kulesza · Satinder Singh

Data-Efficient Hierarchical Reinforcement Learning

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #169

Poster – In Tue Poster Session B
 Ofir Nachum · Shixiang (Shane) Gu · Honglak Lee · Sergey Levine

The Cluster Description Problem - Complexity Results, Formulations and Approximations

Tue Dec 4th 05:00 – 07:00 PM @ Room 210 & 230 AB #170

Poster – In Tue Poster Session B
 Ian Davidson · Antoine Gourru · S Ravi

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 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 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 davis

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 Wiltschko

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

ℓ_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 Mariniou · 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
 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 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 · J?rgen 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 Olšák

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 Tschiatschek · 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

Thu Dec 6th

Making Algorithms Trustworthy: What Can Statistical Science Contribute to Transparency, Explanation and Validation?

Thu Dec 6th 08:30 – 09:20 AM @ Rooms 220 CDE
Invited Talk (Breiman Lecture) – In Thu Invited Talk 1
David Spiegelhalter

Coffee Break

Thu Dec 6th 09:20 – 09:45 AM @
Break –

In Thu Track 1 – Session 1

Thu Dec 6th 09:45 – 09:50 AM @ Room 220 CD – Thu Dec 6th 10:40 – 10:45 AM @ Room 220 CD

Learning with SGD and Random Features

Thu Dec 6th 09:45 – 09:50 AM @ Room 220 CD
Spotlight – In Thu Track 1 – Session 1
Luigi Carratino · Alessandro Rudi · Lorenzo Rosasco
Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #127

KONG: Kernels for ordered-neighborhood graphs

Thu Dec 6th 09:50 – 09:55 AM @ Room 220 CD
Spotlight – In Thu Track 1 – Session 1
Moez Draief · Konstantin Kutzkov · Kevin Scaman · Milan Vojnovic
Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #122

Quadrature-based features for kernel approximation

Thu Dec 6th 09:55 – 10:00 AM @ Room 220 CD
Spotlight – In Thu Track 1 – Session 1
Marina Munkhoeva · Yermek Kapushev · Evgeny Burnaev · Ivan Oseledets
Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #130

Statistical and Computational Trade-Offs in Kernel K-Means

Thu Dec 6th 10:00 – 10:05 AM @ Room 220 CD
Spotlight – In Thu Track 1 – Session 1
Daniele Calandriello · Lorenzo Rosasco
Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #129

Integrated accounts of behavioral and neuroimaging data using flexible recurrent neural network models

Thu Dec 6th 10:05 – 10:20 AM @ Room 220 CD
Oral – In Thu Track 1 – Session 1
Amir Dezfouli · Richard Morris · Fabio Ramos · Peter Dayan · Bernard Balleine
Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #102

Why Is My Classifier Discriminatory?

Thu Dec 6th 10:20 – 10:25 AM @ Room 220 CD
Spotlight – In Thu Track 1 – Session 1
Irene Chen · Fredrik Johansson · David Sontag
Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #120

Human-in-the-Loop Interpretability Prior

Thu Dec 6th 10:25 – 10:30 AM @ Room 220 CD
Spotlight – In Thu Track 1 – Session 1
Isaac Lage · Andrew Ross · Samuel J Gershman · Been Kim · Finale Doshi-Velez
Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #119

Link Prediction Based on Graph Neural Networks

Thu Dec 6th 10:30 – 10:35 AM @ Room 220 CD
Spotlight – In Thu Track 1 – Session 1
Muhan Zhang · Yixin Chen
Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #121

Realistic Evaluation of Deep Semi-Supervised Learning Algorithms

Thu Dec 6th 10:35 – 10:40 AM @ Room 220 CD
Spotlight – In Thu Track 1 – Session 1
Avital Oliver · Augustus Odena · Colin A Raffel · Ekin Dogus Cubuk · Ian Goodfellow
Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #95

Automatic differentiation in ML: Where we are and where we should be going

Thu Dec 6th 10:40 – 10:45 AM @ Room 220 CD
Spotlight – In Thu Track 1 – Session 1
Bart van Merriënboer · Olivier Breuleux · Arnaud Bergeron · Pascal Lamblin
Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #94

In Thu Track 2 – Session 1

Thu Dec 6th 09:45 – 09:50 AM @ Room 220 E – Thu Dec 6th 10:40 – 10:45 AM @ Room 220 E

Graphical model inference: Sequential Monte Carlo meets deterministic approximations

Thu Dec 6th 09:45 – 09:50 AM @ Room 220 E
Spotlight – In Thu Track 2 – Session 1
Fredrik Lindsten · Jouni Helske · Matti Vihola
Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #51

Boosting Black Box Variational Inference

Thu Dec 6th 09:50 – 09:55 AM @ Room 220 E
Spotlight – In Thu Track 2 – Session 1
Francesco Locatello · Gideon Dresdner · Rajiv Khanna · Isabel Valera · Gunnar Raetsch
Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #38

Discretely Relaxing Continuous Variables for tractable Variational Inference

Thu Dec 6th 09:55 – 10:00 AM @ Room 220 E
Spotlight – In Thu Track 2 – Session 1
Trefor Evans · Prasanth Nair
Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #39

Implicit Reparameterization Gradients

Thu Dec 6th 10:00 – 10:05 AM @ Room 220 E
Spotlight – In Thu Track 2 – Session 1
Mikhail Figurnov · Shakir Mohamed · Andriy Mnih
Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #33

Variational Inference with Tail-adaptive f-Divergence

Thu Dec 6th 10:05 – 10:20 AM @ Room 220 E
Oral – In Thu Track 2 – Session 1
Dilin Wang · Hao Liu · Qiang Liu
Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #37

Mirrored Langevin Dynamics

Thu Dec 6th 10:20 – 10:25 AM @ Room 220 E
Spotlight – In Thu Track 2 – Session 1
Ya-Ping Hsieh · Ali Kavis · Paul Rolland · Volkan Cevher
Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #43

Global Convergence of Langevin Dynamics Based Algorithms for Nonconvex Optimization

Thu Dec 6th 10:25 – 10:30 AM @ Room 220 E
 Spotlight – In Thu Track 2 – Session 1
 Pan Xu · Jinghui Chen · Difan Zou · Quanquan Gu
 Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #46

Identification and Estimation of Causal Effects from Dependent Data

Thu Dec 6th 10:30 – 10:35 AM @ Room 220 E
 Spotlight – In Thu Track 2 – Session 1
 Eli Sherman · Ilya Shpitser
 Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #13

Causal Inference via Kernel Deviance Measures

Thu Dec 6th 10:35 – 10:40 AM @ Room 220 E
 Spotlight – In Thu Track 2 – Session 1
 Jovana Mitrovic · Dino Sejdinovic · Yee Whye Teh
 Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #9

Removing Hidden Confounding by Experimental Grounding

Thu Dec 6th 10:40 – 10:45 AM @ Room 220 E
 Spotlight – In Thu Track 2 – Session 1
 Nathan Kallus · Aahlad Manas Puli · Uri Shalit
 Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #2

In Thu Track 3 – Session 1

Thu Dec 6th 09:45 – 09:50 AM @ Room 517 CD – Thu Dec 6th 10:40 – 10:45 AM @ Room 517 CD

Boolean Decision Rules via Column Generation

Thu Dec 6th 09:45 – 09:50 AM @ Room 517 CD
 Spotlight – In Thu Track 3 – Session 1
 Sanjeeb Dash · Oktay Gunluk · Dennis Wei
 Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #79

Fast greedy algorithms for dictionary selection with generalized sparsity constraints

Thu Dec 6th 09:50 – 09:55 AM @ Room 517 CD
 Spotlight – In Thu Track 3 – Session 1
 Kaito Fujii · Tasuku Soma
 Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #78

Distributed ℓ_1 -Clustering for Data with Heavy Noise

Thu Dec 6th 09:55 – 10:00 AM @ Room 517 CD
 Spotlight – In Thu Track 3 – Session 1
 Shi Li · Xiangyu Guo
 Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #73

Do Less, Get More: Streaming Submodular Maximization with Subsampling

Thu Dec 6th 10:00 – 10:05 AM @ Room 517 CD
 Spotlight – In Thu Track 3 – Session 1
 Moran Feldman · Amin Karbasi · Ehsan Kazemi
 Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #75

Optimal Algorithms for Continuous Non-monotone Submodular and DR-Submodular Maximization

Thu Dec 6th 10:05 – 10:20 AM @ Room 517 CD
 Oral – In Thu Track 3 – Session 1
 Rad Niazadeh · Tim Roughgarden · Joshua Wang
 Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #76

Overlapping Clustering Models, and One (class) SVM to Bind Them All

Thu Dec 6th 10:20 – 10:25 AM @ Room 517 CD
 Spotlight – In Thu Track 3 – Session 1
 Xueyu Mao · Purnamrita Sarkar · Deepayan Chakrabarti
 Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #114

Removing the Feature Correlation Effect of Multiplicative Noise

Thu Dec 6th 10:25 – 10:30 AM @ Room 517 CD
 Spotlight – In Thu Track 3 – Session 1
 Zijun Zhang · Yining Zhang · Zongpeng Li
 Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #107

Connectionist Temporal Classification with Maximum Entropy Regularization

Thu Dec 6th 10:30 – 10:35 AM @ Room 517 CD
 Spotlight – In Thu Track 3 – Session 1
 Hu Liu · Sheng Jin · Changshui Zhang
 Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #106

Entropy and mutual information in models of deep neural networks

Thu Dec 6th 10:35 – 10:40 AM @ Room 517 CD
 Spotlight – In Thu Track 3 – Session 1
 Marylou Gabri? · Andre Manoel · Clément Luneau · jean barbier · Nicolas Macris · Florent Krzakala · Lenka Zdeborov?
 Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #110

The committee machine: Computational to statistical gaps in learning a two-layers neural network

Thu Dec 6th 10:40 – 10:45 AM @ Room 517 CD
 Spotlight – In Thu Track 3 – Session 1
 Benjamin Aubin · Antoine Maillard · jean barbier · Florent Krzakala · Nicolas Macris · Lenka Zdeborov?
 Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #111

In Thu Poster Session A

Experimental Design for Cost-Aware Learning of Causal Graphs

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #1
 Poster – In Thu Poster Session A
 Erik Lindgren · Murat Kocaoglu · Alexandros Dimakis · Sriram Vishwanath

Removing Hidden Confounding by Experimental Grounding

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #2
 Poster – In Thu Poster Session A
 Nathan Kallus · Aahlad Manas Puli · Uri Shalit

Domain Adaptation by Using Causal Inference to Predict Invariant Conditional Distributions

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #3
 Poster – In Thu Poster Session A
 Sara Magliacane · Thijs van Ommen · Tom Claassen · Stephan Bongers · Philip Versteeg · Joris M Mooij

Structural Causal Bandits: Where to Intervene?

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #4
 Poster – In Thu Poster Session A
 Sanghack Lee · Elias Bareinboim

Uplift Modeling from Separate Labels

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #5
 Poster – In Thu Poster Session A
 Ikko Yamane · Florian Yger · Jamal Atif · Masashi Sugiyama

Causal Inference with Noisy and Missing Covariates via Matrix Factorization

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #6
 Poster – In Thu Poster Session A
 Nathan Kallus · Xiaojie Mao · Madeleine Udell

Fast Estimation of Causal Interactions using Wold Processes

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #7
 Poster – In Thu Poster Session A
 Flavio Figueiredo · Guilherme Resende Borges · Pedro O.S. Vaz de Melo · Renato Assunção

Learning and Testing Causal Models with Interventions

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #8
 Poster – In Thu Poster Session A
 Jayadev Acharya · Arnab Bhattacharyya · Constantinos Daskalakis · Saravanan Kandasamy

Causal Inference via Kernel Deviance Measures

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #9
 Poster – In Thu Poster Session A
 Jovana Mitrovic · Dino Sejdinovic · Yee Whye Teh

Multi-domain Causal Structure Learning in Linear Systems

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #10
 Poster – In Thu Poster Session A
 AmirEmad Ghassami · Negar Kiyavash · Biwei Huang · Kun Zhang

Causal Inference and Mechanism Clustering of A Mixture of Additive Noise Models

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #11
 Poster – In Thu Poster Session A
 Shoubu Hu · Zhitang Chen · Vahid Partovi Nia · Laiwan CHAN · Yanhui Geng

Direct Estimation of Differences in Causal Graphs

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #12
 Poster – In Thu Poster Session A
 Yuhao Wang · Chandler Squires · Anastasiya Belyaeva · Caroline Uhler

Identification and Estimation of Causal Effects from Dependent Data

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #13
 Poster – In Thu Poster Session A
 Eli Sherman · Ilya Shpitser

Multilingual Anchoring: Interactive Topic Modeling and Alignment Across Languages

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #14
 Poster – In Thu Poster Session A
 Michelle Yuan · Benjamin Van Durme · Jordan Ying

Submodular Field Grammars: Representation, Inference, and Application to Image Parsing

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #15
 Poster – In Thu Poster Session A
 Abram L Friesen · Pedro Domingos

Autoconj: Recognizing and Exploiting Conjugacy Without a Domain-Specific Language

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #16
 Poster – In Thu Poster Session A
 Matthew D. Hoffman · Matthew Johnson · Dustin Tran

Distributionally Robust Graphical Models

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #17
 Poster – In Thu Poster Session A
 Rizal Fathony · Ashkan Rezaei · Mohammad Ali Bashiri · Xinhua Zhang · Brian Ziebart

Flexible and accurate inference and learning for deep generative models

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #18
 Poster – In Thu Poster Session A
 Eszter Vrtes · Maneesh Sahani

Provable Gaussian Embedding with One Observation

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #19
 Poster – In Thu Poster Session A
 Ming Yu · Zhuoran Yang · Tuo Zhao · Mladen Kolar · Princeton Zhaoran Wang

Learning and Inference in Hilbert Space with Quantum Graphical Models

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #20
 Poster – In Thu Poster Session A
 Siddarth Srinivasan · Carlton Downey · Byron Boots

Multi-value Rule Sets for Interpretable Classification with Feature-Efficient Representations

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #21
 Poster – In Thu Poster Session A
 Tong Wang

Nonparametric Bayesian Lomax delegate racing for survival analysis with competing risks

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #22
 Poster – In Thu Poster Session A
 Quan Zhang · Mingyuan Zhou

Theoretical guarantees for EM under misspecified Gaussian mixture models

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #23
 Poster – In Thu Poster Session A
 Raaz Dwivedi · nh?t H? · Koulik Khamaru · Martin Wainwright · Michael Jordan

Nonparametric learning from Bayesian models with randomized objective functions

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #24
 Poster – In Thu Poster Session A
 Simon Lyddon · Stephen Walker · Chris C Holmes

Rectangular Bounding Process

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #25
 Poster – In Thu Poster Session A
 Xuhui Fan · Bin Li · Scott Sisson

A Bayesian Nonparametric View on Count-Min Sketch

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #26
 Poster – In Thu Poster Session A
 Diana Cai · Michael Mitzenmacher · Ryan Adams

Communication Efficient Parallel Algorithms for Optimization on Manifolds

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #27
 Poster – In Thu Poster Session A
 Bayan Saparbayeva · Michael Zhang · Lizhen Lin

Lifted Weighted Mini-Bucket

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #28
 Poster – In Thu Poster Session A
 Nicholas Gallo · Alexander Ihler

Cluster Variational Approximations for Structure Learning of Continuous-Time Bayesian Networks from Incomplete Data

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #29
 Poster – In Thu Poster Session A
 Dominik Linzner · Heinz Koepl

Faithful Inversion of Generative Models for Effective Amortized Inference

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #30
Poster – In Thu Poster Session A
Stefan Webb · Adam Golinski · Rob Zinkov · Siddharth Narayanaswamy · Tom Rainforth · Yee Whye Teh · Frank Wood

A Stein variational Newton method

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #31
Poster – In Thu Poster Session A
Gianluca Detommaso · Tiangang Cui · Youssef Marzouk · Alessio Spantini · Robert Scheichl

Reparameterization Gradient for Non-differentiable Models

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #32
Poster – In Thu Poster Session A
Wonyeol Lee · Hangeol Yu · Hongseok Yang

Implicit Reparameterization Gradients

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #33
Poster – In Thu Poster Session A
Mikhail Figurnov · Shakir Mohamed · Andriy Mnih

SLANG: Fast Structured Covariance Approximations for Bayesian Deep Learning with Natural Gradient

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #34
Poster – In Thu Poster Session A
Aaron Mishkin · Frederik Kunstner · Didrik Nielsen · Mark Schmidt · Mohammad Emtiyaz Khan

Wasserstein Variational Inference

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #35
Poster – In Thu Poster Session A
Luca Ambrogioni · Umut G?l?l? · Ya?mur G?l?l?rk · Max Hinne · Marcel A. J. van Gerven · Eric Maris

Adaptive Path-Integral Autoencoders: Representation Learning and Planning for Dynamical Systems

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #36
Poster – In Thu Poster Session A
Jung-Su Ha · Young-Jin Park · Hyeok-Joo Chae · Soon-Seo Park · Han-Lim Choi

Variational Inference with Tail-adaptive f-Divergence

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #37
Poster – In Thu Poster Session A
Dilin Wang · Hao Liu · Qiang Liu

Boosting Black Box Variational Inference

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #38
Poster – In Thu Poster Session A
Francesco Locatello · Gideon Dresdner · Rajiv Khanna · Isabel Valera · Gunnar Raetsch

Discretely Relaxing Continuous Variables for tractable Variational Inference

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #39
Poster – In Thu Poster Session A
Trefor Evans · Prasanth Nair

Using Large Ensembles of Control Variates for Variational Inference

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #40
Poster – In Thu Poster Session A
Tomas Geffner · Justin Domke

The promises and pitfalls of Stochastic Gradient Langevin Dynamics

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #41
Poster – In Thu Poster Session A
Nicolas Brosse · Alain Durmus · Eric Moulines

Large-Scale Stochastic Sampling from the Probability Simplex

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #42
Poster – In Thu Poster Session A
Jack Baker · Paul Fearnhead · Emily Fox · Christopher Nemeth

Mirrored Langevin Dynamics

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #43
Poster – In Thu Poster Session A
Ya-Ping Hsieh · Ali Kavis · Paul Rolland · Volkan Cevher

Thermostat-assisted continuously-tempered Hamiltonian Monte Carlo for Bayesian learning

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #44
Poster – In Thu Poster Session A
Rui Luo · Jianhong Wang · Yaodong Yang · Jun WANG · Zhanxing Zhu

Dimensionally Tight Bounds for Second-Order Hamiltonian Monte Carlo

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #45
Poster – In Thu Poster Session A
Oren Mangoubi · Nisheeth Vishnoi

Global Convergence of Langevin Dynamics Based Algorithms for Nonconvex Optimization

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #46
Poster – In Thu Poster Session A
Pan Xu · Jinghui Chen · Difan Zou · Quanquan Gu

Meta-Learning MCMC Proposals

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #47
Poster – In Thu Poster Session A
Tongzhou Wang · YI WU · Dave Moore · Stuart Russell

Posterior Concentration for Sparse Deep Learning

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #48
Poster – In Thu Poster Session A
Veronika Rockova · nicholas polson

Analytic solution and stationary phase approximation for the Bayesian lasso and elastic net

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #49
Poster – In Thu Poster Session A
Tom Michoel

Bayesian Model Selection Approach to Boundary Detection with Non-Local Priors

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #50
Poster – In Thu Poster Session A
Fei Jiang · Guosheng Yin · Francesca Dominici

Graphical model inference: Sequential Monte Carlo meets deterministic approximations

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #51
Poster – In Thu Poster Session A
Fredrik Lindsten · Jouni Helske · Matti Vihola

Implicit Probabilistic Integrators for ODEs

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #52
Poster – In Thu Poster Session A
Onur Teymur · Han Cheng Lie · Tim Sullivan · Ben Calderhead

A Bayes-Sard Cubature Method

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #53
Poster – In Thu Poster Session A
Toni Karvonen · Chris J Oates · Simo Sarkka

Deep State Space Models for Time Series Forecasting

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #54
Poster – In Thu Poster Session A
Syama Sundar Rangapuram · Matthias W Seeger · Jan Gasthaus · Lorenzo Stella · Yuyang Wang · Tim Januschowski

BRUNO: A Deep Recurrent Model for Exchangeable Data

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #55
Poster – In Thu Poster Session A
Iryna Korshunova · Jonas Degraeve · Ferenc Huszar · Yarin Gal · Arthur Gretton · Joni Dambre

Scaling Gaussian Process Regression with Derivatives

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #56
Poster – In Thu Poster Session A
David Eriksson · Kun Dong · Eric Lee · David Bindel · Andrew Wilson

Algebraic tests of general Gaussian latent tree models

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #57
Poster – In Thu Poster Session A
Dennis Leung · Mathias Drton

Differentially Private Bayesian Inference for Exponential Families

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #58
Poster – In Thu Poster Session A
Garrett Bernstein · Daniel Sheldon

Semi-crowdsourced Clustering with Deep Generative Models

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #59
Poster – In Thu Poster Session A
Yucen Luo · TIAN TIAN · Jiaxin Shi · Jun Zhu · Bo Zhang

Deep Poisson gamma dynamical systems

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #60
Poster – In Thu Poster Session A
Dandan Guo · Bo Chen · Hao Zhang · Mingyuan Zhou

Deep State Space Models for Unconditional Word Generation

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #61
Poster – In Thu Poster Session A
Florian Schmidt · Thomas Hofmann

Modular Networks: Learning to Decompose Neural Computation

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #62
Poster – In Thu Poster Session A
Louis Kirsch · Julius Kunze · David Barber

Gaussian Process Prior Variational Autoencoders

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #63
Poster – In Thu Poster Session A
Francesco Paolo Casale · Adrian Dalca · Luca Saglietti · Jennifer Listgarten · Nicolo Fusi

Bayesian Semi-supervised Learning with Graph Gaussian Processes

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #64
Poster – In Thu Poster Session A
Yin Cheng Ng · Nicolò Colombo · Ricardo Silva

Inference in Deep Gaussian Processes using Stochastic Gradient Hamiltonian Monte Carlo

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #65
Poster – In Thu Poster Session A
Marton Havasi · Jos? Miguel Hernandez-Lobato · Juan Jos? Murillo-Fuentes

Variational Bayesian Monte Carlo

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #66
Poster – In Thu Poster Session A
Luigi Acerbi

Bayesian Alignments of Warped Multi-Output Gaussian Processes

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #67
Poster – In Thu Poster Session A
Markus Kaiser · Clemens Otte · Thomas Runkler · Carl Henrik Ek

Automating Bayesian optimization with Bayesian optimization

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #68
Poster – In Thu Poster Session A
Gustavo Malkomes · Roman Garnett

Infinite-Horizon Gaussian Processes

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #69
Poster – In Thu Poster Session A
Arno Solin · James Hensman · Richard E Turner

Learning Gaussian Processes by Minimizing PAC-Bayesian Generalization Bounds

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #70
Poster – In Thu Poster Session A
David Reeb · Andreas Doerr · Sebastian Gerwinn · Barbara Rakitsch

Algorithmic Linearly Constrained Gaussian Processes

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #71
Poster – In Thu Poster Session A
Markus Lange-Hegemann

Efficient Projection onto the Perfect Phylogeny Model

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #72
Poster – In Thu Poster Session A
Bei Jia · Surjyendu Ray · Sam Safavi · Jos? Bento

Distributed \mathbb{R}^k -Clustering for Data with Heavy Noise

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #73
Poster – In Thu Poster Session A
Shi Li · Xiangyu Guo

Communication Compression for Decentralized Training

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #74
Poster – In Thu Poster Session A
Hanlin Tang · Shaoduo Gan · Ce Zhang · Tong Zhang · Ji Liu

Do Less, Get More: Streaming Submodular Maximization with Subsampling

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #75
Poster – In Thu Poster Session A
Moran Feldman · Amin Karbasi · Ehsan Kazemi

Optimal Algorithms for Continuous Non-monotone Submodular and DR-Submodular Maximization

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #76
Poster – In Thu Poster Session A
Rad Niazadeh · Tim Roughgarden · Joshua Wang

Provable Variational Inference for Constrained Log-Submodular Models

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #77
Poster – In Thu Poster Session A
Josip Djolonga · Stefanie Jegelka · Andreas Krause

Fast greedy algorithms for dictionary selection with generalized sparsity constraints

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #78
Poster – In Thu Poster Session A
Kaito Fujii · Tasuku Soma

Boolean Decision Rules via Column Generation

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #79
Poster – In Thu Poster Session A
Sanjeeb Dash · Oktay Gunluk · Dennis Wei

Computing Kantorovich-Wasserstein Distances on d -dimensional histograms using $(d+1)$ -partite graphs

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #80
Poster – In Thu Poster Session A
Gennaro Auricchio · Federico Bassetti · Stefano Gualandi · Marco Veneroni

Adaptive Negative Curvature Descent with Applications in Non-convex Optimization

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #81
Poster – In Thu Poster Session A
Mingrui Liu · Zhe Li · Xiaoyu Wang · Jinfeng Yi · Tianbao Yang

Implicit Bias of Gradient Descent on Linear Convolutional Networks

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #82
Poster – In Thu Poster Session A
Suriya Gunasekar · Jason Lee · Daniel Soudry · Nati Srebro

Deep Generative Models for Distribution-Preserving Lossy Compression

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #83
Poster – In Thu Poster Session A
Michael Tschanen · Eirikur Agustsson · Mario Lucic

Visual Object Networks: Image Generation with Disentangled 3D Representations

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #84
Poster – In Thu Poster Session A
Jun-Yan Zhu · Zhoutong Zhang · Chengkai Zhang · Jiajun Wu · Antonio Torralba · Josh Tenenbaum · Bill Freeman

Nonlocal Neural Networks, Nonlocal Diffusion and Nonlocal Modeling

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #85
Poster – In Thu Poster Session A
Yunzhe Tao · Qi Sun · Qiang Du · Wei Liu

Can We Gain More from Orthogonality Regularizations in Training Deep Networks?

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #86
Poster – In Thu Poster Session A
Nitin Bansal · Xiaohan Chen · Zhangyang Wang

Discrimination-aware Channel Pruning for Deep Neural Networks

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #87
Poster – In Thu Poster Session A
Zhuangwei Zhuang · Mingkui Tan · Bohan Zhuang · Jing Liu · Yong Guo · Qingyao Wu · Junzhou Huang · Jinhui Zhu

Probabilistic Model-Agnostic Meta-Learning

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #88
Poster – In Thu Poster Session A
Chelsea Finn · Kelvin Xu · Sergey Levine

FastGRNN: A Fast, Accurate, Stable and Tiny Kilobyte Sized Gated Recurrent Neural Network

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #89
Poster – In Thu Poster Session A
Aditya Kusupati · Manish Singh · Kush Bhatia · Ashish Kumar · Prateek Jain · Manik Varma

Understanding Batch Normalization

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #90
Poster – In Thu Poster Session A
Nils Bjorck · Carla P Gomes · Bart Selman · Kilian Weinberger

How Many Samples are Needed to Estimate a Convolutional Neural Network?

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #91
Poster – In Thu Poster Session A
Simon Du · Yining Wang · Xiyu Zhai · Sivaraman Balakrishnan · Ruslan Salakhutdinov · Aarti Singh

Robust Detection of Adversarial Attacks by Modeling the Intrinsic Properties of Deep Neural Networks

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #92
Poster – In Thu Poster Session A
Zhihao Zheng · Pengyu Hong

Combinatorial Optimization with Graph Convolutional Networks and Guided Tree Search

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #93
Poster – In Thu Poster Session A
Zhuwen Li · Qifeng Chen · Vladlen Koltun

Automatic differentiation in ML: Where we are and where we should be going

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #94
Poster – In Thu Poster Session A
Bart van Merriënboer · Olivier Breuleux · Arnaud Bergeron · Pascal Lamblin

Realistic Evaluation of Deep Semi-Supervised Learning Algorithms

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #95
Poster – In Thu Poster Session A
Avital Oliver · Augustus Odena · Colin A Raffel · Ekin Dogus Cubuk · Ian Goodfellow

Toddler-Inspired Visual Object Learning

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #96
Poster – In Thu Poster Session A
Sven Bambach · David Crandall · Linda Smith · Chen Yu

Generalisation in humans and deep neural networks

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #97
Poster – In Thu Poster Session A
Robert Geirhos · Carlos R. M. Temme · Jonas Rauber · Heiko H. Schött · Matthias Bethge · Felix A. Wichmann

Assessing the Scalability of Biologically-Motivated Deep Learning Algorithms and Architectures

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #98
Poster – In Thu Poster Session A
Sergey Bartunov · Adam Santoro · Blake Richards · Luke Marris · Geoffrey E Hinton · Timothy Lillicrap

Incorporating Context into Language Encoding Models for fMRI

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #99
Poster – In Thu Poster Session A
Shailee Jain · Alexander Huth

Why so gloomy? A Bayesian explanation of human pessimism bias in the multi-armed bandit task

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #100
Poster – In Thu Poster Session A
Dalin Guo · Angela J Yu

Mental Sampling in Multimodal Representations

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #101
Poster – In Thu Poster Session A
Jianqiao Zhu · Adam Sanborn · Nick Chater

Integrated accounts of behavioral and neuroimaging data using flexible recurrent neural network models

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #102
Poster – In Thu Poster Session A
Amir Dezfouli · Richard Morris · Fabio Ramos · Peter Dayan · Bernard Balleine

Efficient inference for time-varying behavior during learning

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #103
Poster – In Thu Poster Session A
Nicholas Roy · Ji Hyun Bak · Athena Akrami · Carlos Brody · Jonathan W Pillow

Multivariate Convolutional Sparse Coding for Electromagnetic Brain Signals

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #104
Poster – In Thu Poster Session A
Tom Dupr? la Tour · Thomas Moreau · Mainak Jas · Alexandre Gramfort

Manifold-tiling Localized Receptive Fields are Optimal in Similarity-preserving Neural Networks

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #105
Poster – In Thu Poster Session A
Anirvan Sengupta · Cengiz Pehlevan · Mariano Tepper · Alexander Genkin · Dmitri Chklovskii

Connectionist Temporal Classification with Maximum Entropy Regularization

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #106
Poster – In Thu Poster Session A
Hu Liu · Sheng Jin · Changshui Zhang

Removing the Feature Correlation Effect of Multiplicative Noise

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #107
Poster – In Thu Poster Session A
Zijun Zhang · Yining Zhang · Zongpeng Li

Overfitting or perfect fitting? Risk bounds for classification and regression rules that interpolate

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #108
Poster – In Thu Poster Session A
Mikhail Belkin · Daniel Hsu · Partha Mitra

Smoothed Analysis of Discrete Tensor Decomposition and Assemblies of Neurons

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #109
Poster – In Thu Poster Session A
Nima Anari · Constantinos Daskalakis · Wolfgang Maass · Christos Papadimitriou · Amin Saberi · Santosh Vempala

Entropy and mutual information in models of deep neural networks

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #110
Poster – In Thu Poster Session A
Marylou Gabri? · Andre Manoel · Cl?ment Luneau · jean barbier · Nicolas Macris · Florent Krzakala · Lenka Zdeborov?

The committee machine: Computational to statistical gaps in learning a two-layers neural network

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #111
Poster – In Thu Poster Session A
Benjamin Aubin · Antoine Maillard · jean barbier · Florent Krzakala · Nicolas Macris · Lenka Zdeborov?

A Unified Framework for Extensive-Form Game Abstraction with Bounds

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #112
Poster – In Thu Poster Session A
Christian Kroer · Tuomas Sandholm

Connecting Optimization and Regularization Paths

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #113
Poster – In Thu Poster Session A
Arun Suggala · Adarsh Prasad · Pradeep Ravikumar

Overlapping Clustering Models, and One (class) SVM to Bind Them All

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #114
Poster – In Thu Poster Session A
Xueyu Mao · Purnamrita Sarkar · Deepayan Chakrabarti

Learning latent variable structured prediction models with Gaussian perturbations

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #115
Poster – In Thu Poster Session A
Kevin Bello · Jean Honorio

Self-Supervised Generation of Spatial Audio for 360° Video

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #116
Poster – In Thu Poster Session A
Pedro Morgado · Nuno Nvasconcelos · Timothy Langlois · Oliver Wang

Symbolic Graph Reasoning Meets Convolutions

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #117
Poster – In Thu Poster Session A
Xiaodan Liang · Zhiting Hu · Hao Zhang · Liang Lin · Eric Xing

Towards Deep Conversational Recommendations

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #118
Poster – In Thu Poster Session A
Raymond Li · Samira Ebrahimi Kahou · Hannes Schulz · Vincent Michalski · Laurent Charlin · Chris Pal

Human-in-the-Loop Interpretability Prior

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #119
Poster – In Thu Poster Session A
Isaac Lage · Andrew Ross · Samuel J Gershman · Been Kim · Finale Doshi-Velez

Why Is My Classifier Discriminatory?

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #120
Poster – In Thu Poster Session A
Irene Chen · Fredrik Johansson · David Sontag

Link Prediction Based on Graph Neural Networks

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #121
Poster – In Thu Poster Session A
Muhan Zhang · Yixin Chen

KONG: Kernels for ordered-neighborhood graphs

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #122
Poster – In Thu Poster Session A
Moez Draief · Konstantin Kutzkov · Kevin Scaman · Milan Vojnovic

Efficient Stochastic Gradient Hard Thresholding

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #123
Poster – In Thu Poster Session A
Pan Zhou · Xiaotong Yuan · Jiashi Feng

Measures of distortion for machine learning

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #124
Poster – In Thu Poster Session A
Leena Chennuru Vankadara · Ulrike von Luxburg

Relating Leverage Scores and Density using Regularized Christoffel Functions

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #125
Poster – In Thu Poster Session A
Edouard Pauwels · Francis Bach · Jean-Philippe Vert

Streaming Kernel PCA with $\tilde{O}(\sqrt{n})$ Random Features

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #126
Poster – In Thu Poster Session A
Md Enayat Ullah · Poorya Mianjy · Teodor Vanislavov Marinov · Raman Arora

Learning with SGD and Random Features

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #127
Poster – In Thu Poster Session A
Luigi Carratino · Alessandro Rudi · Lorenzo Rosasco

But How Does It Work in Theory? Linear SVM with Random Features

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #128
Poster – In Thu Poster Session A
Yitong Sun · Anna Gilbert · Ambuj Tewari

Statistical and Computational Trade-Offs in Kernel K-Means

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #129
Poster – In Thu Poster Session A
Daniele Calandriello · Lorenzo Rosasco

Quadrature-based features for kernel approximation

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #130
Poster – In Thu Poster Session A
Marina Munkhoeva · Yermek Kapushev · Evgeny Burnaev · Ivan Oseledets

Processing of missing data by neural networks

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #131
Poster – In Thu Poster Session A
Marek ?mieja · ?ukasz Struski · Jacek Tabor · Bartosz Zieli?ski · Przemys?aw Spurek

Constructing Deep Neural Networks by Bayesian Network Structure Learning

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #132
Poster – In Thu Poster Session A
Raanan Y. Rohekar · Shami Nisimov · Yaniv Gurwicz · Guy Koren · Gal Novik

Mallows Models for Top-k Lists

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #133
Poster – In Thu Poster Session A
Flavio Chierichetti · Anirban Dasgupta · Shahrzad Haddadan · Ravi Kumar · Silvio Lattanzi

Cooperative neural networks (CoNN): Exploiting prior independence structure for improved classification

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #134
Poster – In Thu Poster Session A
Harsh Shrivastava · Eugene Bart · Bob Price · Hanjun Dai · Bo Dai · Srinivas Aluru

Maximum-Entropy Fine Grained Classification

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #135
Poster – In Thu Poster Session A
Abhimanyu Dubey · Otkrist Gupta · Ramesh Raskar · Nikhil Naik

Efficient Loss-Based Decoding on Graphs for Extreme Classification

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #136
Poster – In Thu Poster Session A
Itay Evron · Edward Moroshko · Koby Crammer

A no-regret generalization of hierarchical softmax to extreme multi-label classification

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #137
Poster – In Thu Poster Session A
Marek Wydmuch · Kalina Jasinska · Mikhail Kuznetsov · R?bert Busa-Fekete · Krzysztof Dembczynski

Efficient Gradient Computation for Structured Output Learning with Rational and Tropical Losses

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #138
Poster – In Thu Poster Session A
Corinna Cortes · Vitaly Kuznetsov · Mehryar Mohri · Dmitry Storcheus · Scott Yang

Deep Structured Prediction with Nonlinear Output Transformations

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #139
Poster – In Thu Poster Session A
Colin Graber · Ofer Meshi · Alexander Schwing

Mapping Images to Scene Graphs with Permutation-Invariant Structured Prediction

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #140
Poster – In Thu Poster Session A
Roei Herzig · Moshiko Raboh · Gal Chechik · Jonathan Berant · Amir Globerson

Large Margin Deep Networks for Classification

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #141
Poster – In Thu Poster Session A
Gamaleldin Elsayed · Dilip Krishnan · Hossein Mobahi · Kevin Regan · Samy Bengio

Semi-supervised Deep Kernel Learning: Regression with Unlabeled Data by Minimizing Predictive Variance

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #142
Poster – In Thu Poster Session A
Neal Jean · Sang Michael Xie · Stefano Ermon

Multitask Boosting for Survival Analysis with Competing Risks

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #143
Poster – In Thu Poster Session A
Alexis Bellot · Mihaela van der Schaar

Multi-Layered Gradient Boosting Decision Trees

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #144
Poster – In Thu Poster Session A
Ji Feng · Yang Yu · Zhi-Hua Zhou

Unsupervised Adversarial Invariance

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #145
Poster – In Thu Poster Session A
Ayush Jaiswal · Rex Yue Wu · Wael Abd-Almageed · Prem Natarajan

Learning Deep Disentangled Embeddings With the F-Statistic Loss

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #146
Poster – In Thu Poster Session A
Karl Ridgeway · Michael Mozer

Learning Latent Subspaces in Variational Autoencoders

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #147
Poster – In Thu Poster Session A
Jack Klys · Jake Snell · Richard Zemel

Dual Swap Disentangling

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #148
Poster – In Thu Poster Session A
Zunlei Feng · Xinchao Wang · Chenglong Ke · An-Xiang Zeng · Dacheng Tao · Mingli Song

Joint Autoregressive and Hierarchical Priors for Learned Image Compression

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #149
Poster – In Thu Poster Session A
David Minnen · Johannes Ball? · Johannes Ball? · George D Toderici

Group Equivariant Capsule Networks

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #150
 Poster – In Thu Poster Session A
 Jan Eric Lenssen · Matthias Fey · Pascal Libuschewski

Learning Disentangled Joint Continuous and Discrete Representations

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #151
 Poster – In Thu Poster Session A
 Emilien Dupont

Image-to-image translation for cross-domain disentanglement

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #152
 Poster – In Thu Poster Session A
 Abel Gonzalez-Garcia · Joost van de Weijer · Yoshua Bengio

Cooperative Learning of Audio and Video Models from Self-Supervised Synchronization

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #153
 Poster – In Thu Poster Session A
 Bruno Korbar · Du Tran · Lorenzo Torresani

Non-Adversarial Mapping with VAEs

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #154
 Poster – In Thu Poster Session A
 Yedid Hoshen

Learning to Teach with Dynamic Loss Functions

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #155
 Poster – In Thu Poster Session A
 Lijun Wu · Fei Tian · Yingce Xia · Yang Fan · Tao Qin · Lai Jian-Huang · Tie-Yan Liu

Maximizing acquisition functions for Bayesian optimization

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #156
 Poster – In Thu Poster Session A
 James Wilson · Frank Hutter · Marc Deisenroth

MetaReg: Towards Domain Generalization using Meta-Regularization

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #157
 Poster – In Thu Poster Session A
 Yogesh Balaji · Swami Sankaranarayanan · Rama Chellappa

Transfer Learning with Neural AutoML

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #158
 Poster – In Thu Poster Session A
 Catherine Wong · Neil Houlsby · Yifeng Lu · Andrea Gesmundo

Hierarchical Reinforcement Learning for Zero-shot Generalization with Subtask Dependencies

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #159
 Poster – In Thu Poster Session A
 Sungryull Sohn · Junhyuk Oh · Honglak Lee

Lifelong Inverse Reinforcement Learning

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #160
 Poster – In Thu Poster Session A
 Jorge A Mendez · Shashank Shivkumar · Eric Eaton

Safe Active Learning for Time-Series Modeling with Gaussian Processes

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #161
 Poster – In Thu Poster Session A
 Christoph Zimmer · Mona Meister · Duy Nguyen-Tuong

Online Structure Learning for Feed-Forward and Recurrent Sum-Product Networks

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #162
 Poster – In Thu Poster Session A
 Agastya Kalra · Abdullah Rashwan · Wei-Shou Hsu · Pascal Poupart · Prashant Doshi · Georgios Trimponias

Preference Based Adaptation for Learning Objectives

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #163
 Poster – In Thu Poster Session A
 Yao-Xiang Ding · Zhi-Hua Zhou

Byzantine Stochastic Gradient Descent

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #164
 Poster – In Thu Poster Session A
 Dan Alistarh · Zeyuan Allen-Zhu · Jerry Li

Contextual bandits with surrogate losses: Margin bounds and efficient algorithms

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #165
 Poster – In Thu Poster Session A
 Dylan Foster · Akshay Krishnamurthy

Online Learning of Quantum States

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #166
 Poster – In Thu Poster Session A
 Scott Aaronson · Xinyi Chen · Elad Hazan · Satyen Kale · Ashwin Nayak

Horizon-Independent Minimax Linear Regression

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #167
 Poster – In Thu Poster Session A
 Alan Malek · Peter Bartlett

Factored Bandits

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #168
 Poster – In Thu Poster Session A
 Julian Zimmert · Yevgeny Seldin

A Model for Learned Bloom Filters and Optimizing by Sandwiching

Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 & 230 AB #169
 Poster – In Thu Poster Session A
 Michael Mitzenmacher

Designing Computer Systems for Software 2.0

Thu Dec 6th 02:15 – 03:05 PM @ Rooms 220 CDE
 Invited Talk – In Thu Invited Talk 2
 Kunle Olukotun

Coffee Break

Thu Dec 6th 03:05 – 03:30 PM @
 Break –

In Thu Track 1 – Session 2

Thu Dec 6th 03:30 – 03:35 PM @ Room 220 CD – Thu Dec 6th 04:55 – 05:00 PM @ Room 220 CD

Robust Subspace Approximation in a Stream

Thu Dec 6th 03:30 – 03:35 PM @ Room 220 CD
Spotlight – In Thu Track 1 – Session 2
Roie Levin · Anish Prasad Sevekari · David Woodruff
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #48

Efficient nonmyopic batch active search

Thu Dec 6th 03:35 – 03:40 PM @ Room 220 CD
Spotlight – In Thu Track 1 – Session 2
Shali Jiang · Gustavo Malkomes · Matthew Abbott · Benjamin Moseley · Roman Garnett
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #131

Interactive Structure Learning with Structural Query-by-Committee

Thu Dec 6th 03:40 – 03:45 PM @ Room 220 CD
Spotlight – In Thu Track 1 – Session 2
Christopher Tosh · Sanjoy Dasgupta
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #130

Contour location via entropy reduction leveraging multiple information sources

Thu Dec 6th 03:45 – 03:50 PM @ Room 220 CD
Spotlight – In Thu Track 1 – Session 2
Alexandre Marques · Remi Lam · Karen Willcox
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #99

Sample-Efficient Reinforcement Learning with Stochastic Ensemble Value Expansion

Thu Dec 6th 03:50 – 04:05 PM @ Room 220 CD
Oral – In Thu Track 1 – Session 2
Jacob Buckman · Danijar Hafner · George Tucker · Eugene Brevdo · Honglak Lee
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #167

Policy-Conditioned Uncertainty Sets for Robust Markov Decision Processes

Thu Dec 6th 04:05 – 04:10 PM @ Room 220 CD
Spotlight – In Thu Track 1 – Session 2
Andrea Tirinzoni · Marek Petrik · Xiangli Chen · Brian Ziebart
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #168

Learning convex bounds for linear quadratic control policy synthesis

Thu Dec 6th 04:10 – 04:15 PM @ Room 220 CD
Spotlight – In Thu Track 1 – Session 2
Jack Umenberger · Thomas Sch?n
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #166

Multiple-Step Greedy Policies in Approximate and Online Reinforcement Learning

Thu Dec 6th 04:15 – 04:20 PM @ Room 220 CD
Spotlight – In Thu Track 1 – Session 2
Yonathan Efroni · Gal Dalal · Bruno Scherrer · Shie Mannor
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #164

Deep Reinforcement Learning in a Handful of Trials using Probabilistic Dynamics Models

Thu Dec 6th 04:20 – 04:25 PM @ Room 220 CD
Spotlight – In Thu Track 1 – Session 2
Kurtland Chua · Roberto Calandra · Rowan McAllister · Sergey Levine
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #165

Non-delusional Q-learning and value-iteration

Thu Dec 6th 04:25 – 04:40 PM @ Room 220 CD
Oral – In Thu Track 1 – Session 2
Tyler Lu · Dale Schuurmans · Craig Boutilier
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #162

Bilevel learning of the Group Lasso structure

Thu Dec 6th 04:40 – 04:45 PM @ Room 220 CD
Spotlight – In Thu Track 1 – Session 2
Jordan Frecon · Saverio Salzo · Massimiliano Pontil
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #92

Binary Classification from Positive-Confidence Data

Thu Dec 6th 04:45 – 04:50 PM @ Room 220 CD
Spotlight – In Thu Track 1 – Session 2
Takashi Ishida · Gang Niu · Masashi Sugiyama
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #97

Fully Understanding The Hashing Trick

Thu Dec 6th 04:50 – 04:55 PM @ Room 220 CD
Spotlight – In Thu Track 1 – Session 2
Lior Kamma · Casper B. Freksen · Casper Green Larsen
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #90

Support Recovery for Orthogonal Matching Pursuit: Upper and Lower bounds

Thu Dec 6th 04:55 – 05:00 PM @ Room 220 CD
Spotlight – In Thu Track 1 – Session 2
Raghav Somani · Chirag Gupta · Prateek Jain · Praneeth Netrapalli
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #63

In Thu Track 2 – Session 2

Thu Dec 6th 03:30 – 03:35 PM @ Room 220 E – Thu Dec 6th 04:55 – 05:00 PM @ Room 220 E

Hyperbolic Neural Networks

Thu Dec 6th 03:30 – 03:35 PM @ Room 220 E
Spotlight – In Thu Track 2 – Session 2
Octavian Ganea · Gary Becigneul · Thomas Hofmann
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #29

Norm matters: efficient and accurate normalization schemes in deep networks

Thu Dec 6th 03:35 – 03:40 PM @ Room 220 E
Spotlight – In Thu Track 2 – Session 2
Elad Hoffer · Ron Banner · Itay Golan · Daniel Soudry
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #27

Constructing Fast Network through Deconstruction of Convolution

Thu Dec 6th 03:40 – 03:45 PM @ Room 220 E
Spotlight – In Thu Track 2 – Session 2
Yunho Jeon · Junmo Kim
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #22

A Simple Unified Framework for Detecting Out-of-Distribution Samples and Adversarial Attacks

Thu Dec 6th 03:45 – 03:50 PM @ Room 220 E
Spotlight – In Thu Track 2 – Session 2
Kimin Lee · Kibok Lee · Honglak Lee · Jinwoo Shin
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #30

Discovery of Latent 3D Keypoints via End-to-end Geometric Reasoning

Thu Dec 6th 03:50 – 04:05 PM @ Room 220 E
Oral – In Thu Track 2 – Session 2
Supasorn Suwajanakorn · Noah Snaveley · Jonathan Tompson · Mohammad Norouzi
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #33

Learning Libraries of Subroutines for Neurally{Guided Bayesian Program Induction

Thu Dec 6th 04:05 – 04:10 PM @ Room 220 E
Spotlight – In Thu Track 2 – Session 2
Kevin Ellis · Lucas Morales · Mathias Sabl?-Meyer · Armando Solar-Lezama · Josh Tenenbaum
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #24

Learning Loop Invariants for Program Verification

Thu Dec 6th 04:10 – 04:15 PM @ Room 220 E
 Spotlight – In Thu Track 2 – Session 2
 Xujie Si · Hanjun Dai · Mukund Raghothaman · Mayur Naik · Le Song
 Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #23

DeepProbLog: Neural Probabilistic Logic Programming

Thu Dec 6th 04:15 – 04:20 PM @ Room 220 E
 Spotlight – In Thu Track 2 – Session 2
 Robin Manhaeve · Sebastijan Dumancic · Angelika Kimmig · Thomas Demeester · Luc De Raedt
 Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #118

Learning to Infer Graphics Programs from Hand-Drawn Images

Thu Dec 6th 04:20 – 04:25 PM @ Room 220 E
 Spotlight – In Thu Track 2 – Session 2
 Kevin Ellis · Daniel Ritchie · Armando Solar-Lezama · Josh Tenenbaum
 Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #25

Learning to Reconstruct Shapes from Unseen Classes

Thu Dec 6th 04:25 – 04:40 PM @ Room 220 E
 Oral – In Thu Track 2 – Session 2
 Xiuming Zhang · Zhoutong Zhang · Chengkai Zhang · Josh Tenenbaum · Bill Freeman · Jiajun Wu
 Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #34

Improving Neural Program Synthesis with Inferred Execution Traces

Thu Dec 6th 04:40 – 04:45 PM @ Room 220 E
 Spotlight – In Thu Track 2 – Session 2
 Richard Shin · Illia Polosukhin · Dawn Song
 Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #31

ResNet with one-neuron hidden layers is a Universal Approximator

Thu Dec 6th 04:45 – 04:50 PM @ Room 220 E
 Spotlight – In Thu Track 2 – Session 2
 Hongzhou Lin · Stefanie Jegelka
 Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #28

Towards Understanding Learning Representations: To What Extent Do Different Neural Networks Learn the Same Representation

Thu Dec 6th 04:50 – 04:55 PM @ Room 220 E
 Spotlight – In Thu Track 2 – Session 2
 Liwei Wang · Lunjia Hu · Jiayuan Gu · Zhiqiang Hu · Yue Wu · Kun He · John Hopcroft
 Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #26

Generalized Cross Entropy Loss for Training Deep Neural Networks with Noisy Labels

Thu Dec 6th 04:55 – 05:00 PM @ Room 220 E
 Spotlight – In Thu Track 2 – Session 2
 Zhilu Zhang · Mert Sabuncu
 Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #101

In Thu Track 3 – Session 2

Thu Dec 6th 03:30 – 03:35 PM @ Room 517 CD – Thu Dec 6th 04:55 – 05:00 PM @ Room 517 CD

A Simple Proximal Stochastic Gradient Method for Nonsmooth Nonconvex Optimization

Thu Dec 6th 03:30 – 03:35 PM @ Room 517 CD
 Spotlight – In Thu Track 3 – Session 2
 Zhize Li · Jian Li
 Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #5

Stochastic Chebyshev Gradient Descent for Spectral Optimization

Thu Dec 6th 03:35 – 03:40 PM @ Room 517 CD
 Spotlight – In Thu Track 3 – Session 2
 Insu Han · Haim Avron · Jinwoo Shin
 Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #6

LAG: Lazily Aggregated Gradient for Communication-Efficient Distributed Learning

Thu Dec 6th 03:40 – 03:45 PM @ Room 517 CD
 Spotlight – In Thu Track 3 – Session 2
 Tianyi Chen · Georgios Giannakis · Tao Sun · Wotao Yin
 Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #8

Low-rank Interaction with Sparse Additive Effects Model for Large Data Frames

Thu Dec 6th 03:45 – 03:50 PM @ Room 517 CD
 Spotlight – In Thu Track 3 – Session 2
 Genevi?ve Robin · Hoi-To Wai · Julie Josse · Olga Klopp · Eric Moulines
 Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #87

Optimal Algorithms for Non-Smooth Distributed Optimization in Networks

Thu Dec 6th 03:50 – 04:05 PM @ Room 517 CD
 Oral – In Thu Track 3 – Session 2
 Kevin Scaman · Francis Bach · Sebastien Bubeck · Laurent Massoulié · Yin Tat Lee
 Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #10

Direct Runge-Kutta Discretization Achieves Acceleration

Thu Dec 6th 04:05 – 04:10 PM @ Room 517 CD
 Spotlight – In Thu Track 3 – Session 2
 Jingzhao Zhang · Aryan Mokhtari · Suvrit Sra · Ali Jadbabaie
 Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #9

Limited Memory Kelley’s Method Converges for Composite Convex and Submodular Objectives

Thu Dec 6th 04:10 – 04:15 PM @ Room 517 CD
 Spotlight – In Thu Track 3 – Session 2
 Song Zhou · Swati Gupta · Madeleine Udell
 Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #16

(Probably) Concave Graph Matching

Thu Dec 6th 04:15 – 04:20 PM @ Room 517 CD
 Spotlight – In Thu Track 3 – Session 2
 Haggai Maron · Yaron Lipman
 Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #12

Graph Oracle Models, Lower Bounds, and Gaps for Parallel Stochastic Optimization

Thu Dec 6th 04:20 – 04:25 PM @ Room 517 CD
 Spotlight – In Thu Track 3 – Session 2
 Blake Woodworth · Jialei Wang · Adam Smith · Brendan McMahan · Nati Srebro
 Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #11

Smoothed analysis of the low-rank approach for smooth semidefinite programs

Thu Dec 6th 04:25 – 04:40 PM @ Room 517 CD
 Oral – In Thu Track 3 – Session 2
 Thomas Pummer · Samy Jelassi · Nicolas Boumal
 Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #3

Wasserstein Distributionally Robust Kalman Filtering

Thu Dec 6th 04:40 – 04:45 PM @ Room 517 CD
 Spotlight – In Thu Track 3 – Session 2
 Soroosh Shafieezadeh Abadeh · Viet Anh Nguyen · Daniel Kuhn · Peyman Mohajerin Esfahani
 Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #14

Decentralize and Randomize: Faster Algorithm for Wasserstein Barycenters

Thu Dec 6th 04:45 – 04:50 PM @ Room 517 CD
 Spotlight – In Thu Track 3 – Session 2
 Pavel Dvurechenskii · Darina Dvinskikh · Alexander Gasnikov · Cesar Uribe · Angelia Nedich
 Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #15

Robust Hypothesis Testing Using Wasserstein Uncertainty Sets

Thu Dec 6th 04:50 – 04:55 PM @ Room 517 CD
 Spotlight – In Thu Track 3 – Session 2
 RUI GAO · Liyan Xie · Yao Xie · Huan Xu
 Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #2

Convergence of Cubic Regularization for Nonconvex Optimization under KL Property

Thu Dec 6th 04:55 – 05:00 PM @ Room 517 CD
 Spotlight – In Thu Track 3 – Session 2
 Yi Zhou · Zhe Wang · Yingbin Liang
 Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #4

In Thu Poster Session B

Streamlining Variational Inference for Constraint Satisfaction Problems

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #1
 Poster – In Thu Poster Session B
 Aditya Grover · Tudor Achim · Stefano Ermon

Robust Hypothesis Testing Using Wasserstein Uncertainty Sets

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #2
 Poster – In Thu Poster Session B
 RUI GAO · Liyan Xie · Yao Xie · Huan Xu

Smoothed analysis of the low-rank approach for smooth semidefinite programs

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #3
 Poster – In Thu Poster Session B
 Thomas Pummer · Samy Jelassi · Nicolas Boumal

Convergence of Cubic Regularization for Nonconvex Optimization under KL Property

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #4
 Poster – In Thu Poster Session B
 Yi Zhou · Zhe Wang · Yingbin Liang

A Simple Proximal Stochastic Gradient Method for Nonsmooth Nonconvex Optimization

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #5
 Poster – In Thu Poster Session B
 Zhize Li · Jian Li

Stochastic Chebyshev Gradient Descent for Spectral Optimization

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #6
 Poster – In Thu Poster Session B
 Insu Han · Haim Avron · Jinwoo Shin

Proximal SCOPE for Distributed Sparse Learning

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #7
 Poster – In Thu Poster Session B
 Shenyi Zhao · Gong-Duo Zhang · Ming-Wei Li · Wu-Jun Li

LAG: Lazily Aggregated Gradient for Communication-Efficient Distributed Learning

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #8
 Poster – In Thu Poster Session B
 Tianyi Chen · Georgios Giannakis · Tao Sun · Wotao Yin

Direct Runge-Kutta Discretization Achieves Acceleration

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #9
 Poster – In Thu Poster Session B
 Jingzhao Zhang · Aryan Mokhtari · Suvrit Sra · Ali Jadbabaie

Optimal Algorithms for Non-Smooth Distributed Optimization in Networks

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #10
 Poster – In Thu Poster Session B
 Kevin Scaman · Francis Bach · Sebastien Bubeck · Laurent Massoulié · Yin Tat Lee

Graph Oracle Models, Lower Bounds, and Gaps for Parallel Stochastic Optimization

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #11
 Poster – In Thu Poster Session B
 Blake Woodworth · Jialei Wang · Adam Smith · Brendan McMahan · Nati Srebro

(Probably) Concave Graph Matching

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #12
 Poster – In Thu Poster Session B
 Haggai Maron · Yaron Lipman

Solving Non-smooth Constrained Programs with Lower Complexity than $\frac{1}{\epsilon}$: A Primal-Dual Homotopy Smoothing Approach

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #13
 Poster – In Thu Poster Session B
 Xiaohan Wei · Hao Yu · Qing Ling · Michael Neely

Wasserstein Distributionally Robust Kalman Filtering

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #14
 Poster – In Thu Poster Session B
 Soroosh Shafieezadeh Abadeh · Viet Anh Nguyen · Daniel Kuhn · Peyman Mohajerin Esfahani

Decentralize and Randomize: Faster Algorithm for Wasserstein Barycenters

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #15
 Poster – In Thu Poster Session B
 Pavel Dvurechenskii · Darina Dvinskikh · Alexander Gasnikov · Cesar Uribe · Angelia Nedich

Limited Memory Kelley's Method Converges for Composite Convex and Submodular Objectives

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #16
 Poster – In Thu Poster Session B
 Song Zhou · Swati Gupta · Madeleine Udell

Stochastic Spectral and Conjugate Descent Methods

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #17
 Poster – In Thu Poster Session B
 Dmitry Kovalev · Peter Richtarik · Eduard Gorbunov · Elnur Gasanov

Third-order Smoothness Helps: Faster Stochastic Optimization Algorithms for Finding Local Minima

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #18
 Poster – In Thu Poster Session B
 Yaodong Yu · Pan Xu · Quanquan Gu

First-order Stochastic Algorithms for Escaping From Saddle Points in Almost Linear Time

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #19
 Poster – In Thu Poster Session B
 Yi Xu · Jing Rong · Tianbao Yang

Gen-0ja: Simple & Efficient Algorithm for Streaming Generalized Eigenvector Computation

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #20
 Poster – In Thu Poster Session B
 Kush Bhatia · Aldo Pacchiano · Nicolas Flammarion · Peter Bartlett · Michael Jordan

Sparse DNNs with Improved Adversarial Robustness

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #21
 Poster – In Thu Poster Session B
 Yiwen Guo · Chao Zhang · Changshui Zhang · Yurong Chen

Constructing Fast Network through Deconstruction of Convolution

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #22
 Poster – In Thu Poster Session B
 Yunho Jeon · Junmo Kim

Learning Loop Invariants for Program Verification

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #23
 Poster – In Thu Poster Session B
 Xujie Si · Hanjun Dai · Mukund Raghothaman · Mayur Naik · Le Song

Learning Libraries of Subroutines for Neurally{Guided Bayesian Program Induction

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #24
 Poster – In Thu Poster Session B
 Kevin Ellis · Lucas Morales · Mathias Sabl?-Meyer · Armando Solar-Lezama · Josh Tenenbaum

Learning to Infer Graphics Programs from Hand-Drawn Images

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #25
 Poster – In Thu Poster Session B
 Kevin Ellis · Daniel Ritchie · Armando Solar-Lezama · Josh Tenenbaum

Towards Understanding Learning Representations: To What Extent Do Different Neural Networks Learn the Same Representation

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #26
 Poster – In Thu Poster Session B
 Liwei Wang · Lunjia Hu · Jiayuan Gu · Zhiqiang Hu · Yue Wu · Kun He · John Hopcroft

Norm matters: efficient and accurate normalization schemes in deep networks

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #27
 Poster – In Thu Poster Session B
 Elad Hoffer · Ron Banner · Itay Golan · Daniel Soudry

ResNet with one-neuron hidden layers is a Universal Approximator

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #28
 Poster – In Thu Poster Session B
 Hongzhou Lin · Stefanie Jegelka

Hyperbolic Neural Networks

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #29
 Poster – In Thu Poster Session B
 Octavian Ganea · Gary Becigneul · Thomas Hofmann

A Simple Unified Framework for Detecting Out-of-Distribution Samples and Adversarial Attacks

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #30
 Poster – In Thu Poster Session B
 Kimin Lee · Kibok Lee · Honglak Lee · Jinwoo Shin

Improving Neural Program Synthesis with Inferred Execution Traces

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #31
 Poster – In Thu Poster Session B
 Richard Shin · Illia Polosukhin · Dawn Song

Scaling the Poisson GLM to massive neural datasets through polynomial approximations

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #32
 Poster – In Thu Poster Session B
 David Zoltowski · Jonathan W Pillow

Discovery of Latent 3D Keypoints via End-to-end Geometric Reasoning

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #33
 Poster – In Thu Poster Session B
 Supasorn Suwajanakorn · Noah Snaveley · Jonathan Tompson · Mohammad Norouzi

Learning to Reconstruct Shapes from Unseen Classes

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #34
 Poster – In Thu Poster Session B
 Xiuming Zhang · Zhoutong Zhang · Chengkai Zhang · Josh Tenenbaum · Bill Freeman · Jiajun Wu

Using Trusted Data to Train Deep Networks on Labels Corrupted by Severe Noise

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #35
 Poster – In Thu Poster Session B
 Dan Hendrycks · Mantas Mazeika · Duncan Wilson · Kevin Gimpel

A Reduction for Efficient LDA Topic Reconstruction

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #37
 Poster – In Thu Poster Session B
 Matteo Almanza · Flavio Chierichetti · Alessandro Panconesi · Andrea Vattani

A Unified View of Piecewise Linear Neural Network Verification

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #38
 Poster – In Thu Poster Session B
 Rudy Bunel · Ilker Turkaslan · Philip Torr · Pushmeet Kohli · Pawan K Mudigonda

Optimization over Continuous and Multi-dimensional Decisions with Observational Data

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #39
 Poster – In Thu Poster Session B
 Dimitris Bertsimas · Christopher McCord

The Convergence of Sparsified Gradient Methods

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #40
 Poster – In Thu Poster Session B
 Dan Alistarh · Torsten Hoeffer · Mikael Johansson · Nikola Konstantinov · Sarit Khirirat · Cedric Renggli

Estimating Learnability in the Sublinear Data Regime

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #41
 Poster – In Thu Poster Session B
 Weihao Kong · Gregory Valiant

Learning convex polytopes with margin

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #42
 Poster – In Thu Poster Session B
 Lee-Ad Gottlieb · Eran Kaufman · Aryeh Kontorovich · Gabriel Nivasch

Ridge Regression and Provable Deterministic Ridge Leverage Score Sampling

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #43
 Poster – In Thu Poster Session B
 Shannon McCurdy

GIANT: Globally Improved Approximate Newton Method for Distributed Optimization

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #44
 Poster – In Thu Poster Session B
 Shusen Wang · Farbod Roosta-Khorasani · Peng Xu · Michael W Mahoney

Wavelet regression and additive models for irregularly spaced data

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #45
Poster – In Thu Poster Session B
Asad Haris · Ali Shojaie · Noah Simon

New Insight into Hybrid Stochastic Gradient Descent: Beyond With-Replacement Sampling and Convexity

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #46
Poster – In Thu Poster Session B
Pan Zhou · Xiaotong Yuan · Jiashi Feng

Sample Efficient Stochastic Gradient Iterative Hard Thresholding Method for Stochastic Sparse Linear Regression with Limited Attribute Observation

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #47
Poster – In Thu Poster Session B
Tomoya Murata · Taiji Suzuki

Robust Subspace Approximation in a Stream

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #48
Poster – In Thu Poster Session B
Roie Levin · Anish Prasad Sevekari · David Woodruff

A Practical Algorithm for Distributed Clustering and Outlier Detection

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #50
Poster – In Thu Poster Session B
Jiecao Chen · Erfan Sadeqi Azer · Qin Zhang

Compact Representation of Uncertainty in Clustering

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #51
Poster – In Thu Poster Session B
Craig Greenberg · Nicholas Monath · Ari Kobren · Patrick Flaherty · Andrew McGregor · Andrew McCallum

Bipartite Stochastic Block Models with Tiny Clusters

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #52
Poster – In Thu Poster Session B
Stefan Neumann

Clustering Redemption{Beyond the Impossibility of Kleinberg’s Axioms

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #53
Poster – In Thu Poster Session B
Vincent Cohen-Addad · Varun Kanade · Frederik Mallmann-Trenn

Understanding Regularized Spectral Clustering via Graph Conductance

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #54
Poster – In Thu Poster Session B
Yilin Zhang · Karl Rohe

Query K-means Clustering and the Double Dixie Cup Problem

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #55
Poster – In Thu Poster Session B
I Chien · Chao Pan · Olgica Milenkovic

How to tell when a clustering is (approximately) correct using convex relaxations

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #56
Poster – In Thu Poster Session B
Marina Meila

Derivative Estimation in Random Design

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #57
Poster – In Thu Poster Session B
Yu Liu · Kris De Brabanter

Exploiting Numerical Sparsity for Efficient Learning : Faster Eigenvector Computation and Regression

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #58
Poster – In Thu Poster Session B
Neha Gupta · Aaron Sidford

Boosted Sparse and Low-Rank Tensor Regression

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #59
Poster – In Thu Poster Session B
Lifang He · Kun Chen · Wanwan Xu · Jiayu Zhou · Fei Wang

An Efficient Pruning Algorithm for Robust Isotonic Regression

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #60
Poster – In Thu Poster Session B
Cong Han Lim

A convex program for bilinear inversion of sparse vectors

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #61
Poster – In Thu Poster Session B
Alireza Aghasi · Ali Ahmed · Paul Hand · Babhru Joshi

Efficient Convex Completion of Coupled Tensors using Coupled Nuclear Norms

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #62
Poster – In Thu Poster Session B
Kishan Wimalawarne · Hiroshi Mamitsuka

Support Recovery for Orthogonal Matching Pursuit: Upper and Lower bounds

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #63
Poster – In Thu Poster Session B
Raghav Somani · Chirag Gupta · Prateek Jain · Praneeth Netrapalli

Learning without the Phase: Regularized PhaseMax Achieves Optimal Sample Complexity

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #64
Poster – In Thu Poster Session B
Fariborz Salehi · Ehsan Abbasi · Babak Hassibi

On Controllable Sparse Alternatives to Softmax

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #65
Poster – In Thu Poster Session B
Anirban Laha · Saneem Ahmed Chemmengath · Priyanka Agrawal · Mitesh Khapra · Karthik Sankaranarayanan · Harish Ramaswamy

Sparse PCA from Sparse Linear Regression

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #66
Poster – In Thu Poster Session B
Guy Bresler · Sung Min Park · Madalina Persu

Efficient Anomaly Detection via Matrix Sketching

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #67
Poster – In Thu Poster Session B
Vatsal Sharan · Parikshit Gopalan · Udi Wieder

Dimensionality Reduction for Stationary Time Series via Stochastic Nonconvex Optimization

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #69
Poster – In Thu Poster Session B
Minshuo Chen · Lin Yang · Mengdi Wang · Tuo Zhao

Contrastive Learning from Pairwise Measurements

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #70
Poster – In Thu Poster Session B
Yi Chen · Zhuoran Yang · Yuchen Xie · Princeton Zhaoran Wang

Deep Functional Dictionaries: Learning Consistent Semantic Structures on 3D Models from Functions

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #71
Poster – In Thu Poster Session B
Minhyuk Sung · Hao Su · Ronald Yu · Leonidas J Guibas

Large Scale computation of Means and Clusters for Persistence Diagrams using Optimal Transport

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #72
Poster – In Thu Poster Session B
Theo Lacombe · Marco Cuturi · Steve OUDOT

Representation Learning of Compositional Data

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #73
Poster – In Thu Poster Session B
Marta Avalos · Richard Nock · Cheng Soon Ong · Julien Rouar · Ke Sun

How To Make the Gradients Small Stochastically: Even Faster Convex and Nonconvex SGD

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #74
Poster – In Thu Poster Session B
Zeyuan Allen-Zhu

Statistical Optimality of Stochastic Gradient Descent on Hard Learning Problems through Multiple Passes

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #75
Poster – In Thu Poster Session B
Loucas Pillaud-Vivien · Alessandro Rudi · Francis Bach

Optimal Subsampling with Influence Functions

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #76
Poster – In Thu Poster Session B
Daniel Ting · Eric Brochu

Metric on Nonlinear Dynamical Systems with Perron-Frobenius Operators

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #77
Poster – In Thu Poster Session B
Isao Ishikawa · Keisuke Fujii · Masahiro Ikeda · Yuka Hashimoto · Yoshinobu Kawahara

Random Feature Stein Discrepancies

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #78
Poster – In Thu Poster Session B
Jonathan Huggins · Lester Mackey

Informative Features for Model Comparison

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #79
Poster – In Thu Poster Session B
Wittawat Jitkrittum · Heishiro Kanagawa · Patsorn Sangkloy · James Hays · Bernhard Schölkopf · Arthur Gretton

On Fast Leverage Score Sampling and Optimal Learning

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #80
Poster – In Thu Poster Session B
Alessandro Rudi · Daniele Calandriello · Luigi Carratino · Lorenzo Rosasco

Persistence Fisher Kernel: A Riemannian Manifold Kernel for Persistence Diagrams

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #81
Poster – In Thu Poster Session B
Tam Le · Makoto Yamada

Learning Bounds for Greedy Approximation with Explicit Feature Maps from Multiple Kernels

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #82
Poster – In Thu Poster Session B
Shahin Shahrampour · Vahid Tarokh

RetGK: Graph Kernels based on Return Probabilities of Random Walks

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #83

Poster – In Thu Poster Session B
Zhen Zhang · Mianzhi Wang · Yijian Xiang · Yan Huang · Arye Nehorai

Nonparametric Density Estimation under Adversarial Losses

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #84
Poster – In Thu Poster Session B
Shashank Singh · Ananya Uppal · Boyue Li · Chun-Liang Li · Manzil Zaheer · Barnabas Poczos

Deep Homogeneous Mixture Models: Representation, Separation, and Approximation

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #85
Poster – In Thu Poster Session B
Priyank Jaini · Pascal Poupart · Yaoliang Yu

Gaussian Process Conditional Density Estimation

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #86
Poster – In Thu Poster Session B
Vincent Dutoit · Hugh Salimbeni · James Hensman · Marc Deisenroth

Low-rank Interaction with Sparse Additive Effects Model for Large Data Frames

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #87
Poster – In Thu Poster Session B
Genevieve Robin · Hoi-To Wai · Julie Josse · Olga Klopp · Eric Moulines

Mixture Matrix Completion

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #88
Poster – In Thu Poster Session B
Daniel Pimentel-Alarcon

Multivariate Time Series Imputation with Generative Adversarial Networks

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #89
Poster – In Thu Poster Session B
Yonghong Luo · Xiangrui Cai · Ying ZHANG · Jun Xu · Yuan xiaojie

Fully Understanding The Hashing Trick

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #90
Poster – In Thu Poster Session B
Lior Kamra · Casper B. Freksen · Kasper Green Larsen

Learning semantic similarity in a continuous space

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #91
Poster – In Thu Poster Session B
Michel Deudon

Bilevel learning of the Group Lasso structure

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #92
Poster – In Thu Poster Session B
Jordan Frecon · Saverio Salzo · Massimiliano Pontil

Bayesian Structure Learning by Recursive Bootstrap

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #93
Poster – In Thu Poster Session B
Raanan Y. Rohekar · Yaniv Gurwicz · Shami Nisimov · Guy Koren · Gal Novik

Learning from Group Comparisons: Exploiting Higher Order Interactions

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #94
Poster – In Thu Poster Session B
Yao Li · Minhao Cheng · Kevin Fujii · Fushing Hsieh · Cho-Jui Hsieh

A Structured Prediction Approach for Label Ranking

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #95
Poster – In Thu Poster Session B
Anna Korba · Alexandre Garcia · Florence d'Alch?-Buc

The Sample Complexity of Semi-Supervised Learning with Nonparametric Mixture Models

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #96
 Poster – In Thu Poster Session B
 Chen Dan · Liu Leqi · Bryon Aragam · Pradeep Ravikumar · Eric Xing

Binary Classification from Positive-Confidence Data

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #97
 Poster – In Thu Poster Session B
 Takashi Ishida · Gang Niu · Masashi Sugiyama

Learning SMaLL Predictors

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #98
 Poster – In Thu Poster Session B
 Vikas Garg · Ofer Dekel · Lin Xiao

Contour location via entropy reduction leveraging multiple information sources

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #99
 Poster – In Thu Poster Session B
 Alexandre Marques · Remi Lam · Karen Willcox

Multi-Class Learning: From Theory to Algorithm

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #100
 Poster – In Thu Poster Session B
 Jian Li · Yong Liu · Rong Yin · Hua Zhang · Lizhong Ding · Weiping Wang

Generalized Cross Entropy Loss for Training Deep Neural Networks with Noisy Labels

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #101
 Poster – In Thu Poster Session B
 Zhilu Zhang · Mert Sabuncu

A Smoother Way to Train Structured Prediction Models

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #102
 Poster – In Thu Poster Session B
 Venkata Krishna Pillutla · Vincent Roulet · Sham Kakade · Zaid Harchaoui

Constrained Graph Variational Autoencoders for Molecule Design

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #103
 Poster – In Thu Poster Session B
 Qi Liu · Miltiadis Allamanis · Marc Brockschmidt · Alexander Gaunt

Learning Beam Search Policies via Imitation Learning

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #104
 Poster – In Thu Poster Session B
 Renato Negrinho · Matthew Gormley · Geoffrey Gordon

Loss Functions for Multiset Prediction

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #105
 Poster – In Thu Poster Session B
 Sean Welleck · Zixin Yao · Yu Gai · Jialin Mao · Zheng Zhang · Kyunghyun Cho

Learning Confidence Sets using Support Vector Machines

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #106
 Poster – In Thu Poster Session B
 Wenbo Wang · Xingye Qiao

Fast Similarity Search via Optimal Sparse Lifting

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #107
 Poster – In Thu Poster Session B
 Wenye Li · Jingwei Mao · Yin Zhang · Shuguang Cui

The Sparse Manifold Transform

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #108
 Poster – In Thu Poster Session B
 Yubei Chen · Dylan Paiton · Bruno Olshausen

When do random forests fail?

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #109
 Poster – In Thu Poster Session B
 Cheng Tang · Damien Garreau · Ulrike von Luxburg

Diverse Ensemble Evolution: Curriculum Data-Model Marriage

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #110
 Poster – In Thu Poster Session B
 Tianyi Zhou · Shengjie Wang · Jeff Bilmes

The Pessimistic Limits and Possibilities of Margin-based Losses in Semi-supervised Learning

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #111
 Poster – In Thu Poster Session B
 Jesse Krijthe · Marco Loog

Semi-Supervised Learning with Declaratively Specified Entropy Constraints

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #112
 Poster – In Thu Poster Session B
 Haitian Sun · William Cohen · Lidong Bing

Learning to Multitask

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #113
 Poster – In Thu Poster Session B
 Yu Zhang · Ying Wei · Qiang Yang

CatBoost: unbiased boosting with categorical features

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #114
 Poster – In Thu Poster Session B
 Ludmila Prokhorenkova · Gleb Gusev · Aleksandr Vorobev · Anna Veronika Dorogush · Andrey Gulin

Supervised autoencoders: Improving generalization performance with unsupervised regularizers

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #115
 Poster – In Thu Poster Session B
 Lei Le · Andrew Patterson · Martha White

Representation Learning for Treatment Effect Estimation from Observational Data

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #116
 Poster – In Thu Poster Session B
 Liuyi Yao · Sheng Li · Yaliang Li · Mengdi Huai · Jing Gao · Aidong Zhang

Simple Embedding for Link Prediction in Knowledge Graphs

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #117
 Poster – In Thu Poster Session B
 Seyed Mehran Kazemi · David Poole

DeepProbLog: Neural Probabilistic Logic Programming

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #118
 Poster – In Thu Poster Session B
 Robin Manhaeve · Sebastijan Dumancic · Angelika Kimmig · Thomas Demeester · Luc De Raedt

Watch Your Step: Learning Node Embeddings via Graph Attention

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #119
 Poster – In Thu Poster Session B
 Sami Abu-El-Haija · Bryan Perozzi · Rami Al-Rfou · Alexander Alemi

Invariant Representations without Adversarial Training

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #120

Poster – In Thu Poster Session B

Daniel Moyer · Shuyang Gao · Rob Brekelmans · Aram Galstyan · Greg Ver Steeg

Domain-Invariant Projection Learning for Zero-Shot Recognition

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #121

Poster – In Thu Poster Session B

An Zhao · Mingyu Ding · Jiechao Guan · Zhiwu Lu · Tao Xiang · Ji-Rong Wen

Unsupervised Learning of View-invariant Action Representations

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #122

Poster – In Thu Poster Session B

Junnan Li · Yongkang Wong · Qi Zhao · Mohan Kankanhalli

Neural Architecture Optimization

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #123

Poster – In Thu Poster Session B

Renqian Luo · Fei Tian · Tao Qin · Enhong Chen · Tie-Yan Liu

Scalable Hyperparameter Transfer Learning

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #124

Poster – In Thu Poster Session B

Valerio Perrone · Rodolphe Jenatton · Matthias W Seeger · Cedric Archambeau

Learning To Learn Around A Common Mean

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #125

Poster – In Thu Poster Session B

Giulia Denevi · Carlo Ciliberto · Dimitris Stamos · Massimiliano Pontil

Hybrid-MST: A Hybrid Active Sampling Strategy for Pairwise Preference Aggregation

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #126

Poster – In Thu Poster Session B

JING LI · Rafal Mantiuk · Junle Wang · Suiyi Ling · Patrick Le Callet

Algorithmic Assurance: An Active Approach to Algorithmic Testing using Bayesian Optimisation

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #127

Poster – In Thu Poster Session B

Shivapratap Gopakumar · Sunil Gupta · Santu Rana · Vu Nguyen · Svetha Venkatesh

Understanding the Role of Adaptivity in Machine Teaching: The Case of Version Space Learners

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #128

Poster – In Thu Poster Session B

Yuxin Chen · Adish Singla · Oisín Mac Aodha · Pietro Perona · Yisong Yue

Active Learning for Non-Parametric Regression Using Purely Random Trees

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #129

Poster – In Thu Poster Session B

Jack Goetz · Ambuj Tewari · Paul Zimmerman

Interactive Structure Learning with Structural Query-by-Committee

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #130

Poster – In Thu Poster Session B

Christopher Tosh · Sanjoy Dasgupta

Efficient nonmyopic batch active search

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #131

Poster – In Thu Poster Session B

Shali Jiang · Gustavo Malkomes · Matthew Abbott · Benjamin Moseley · Roman Garnett

Uncertainty Sampling is Preconditioned Stochastic Gradient Descent on Zero-One Loss

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #132

Poster – In Thu Poster Session B

Stephen Mussmann · Percy Liang

Online Adaptive Methods, Universality and Acceleration

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #133

Poster – In Thu Poster Session B

Yehuda Kfir Levy · Alp Yurtsever · Volkan Cevher

Online Improper Learning with an Approximation Oracle

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #134

Poster – In Thu Poster Session B

Elad Hazan · Wei Hu · Yuanzhi Li · zhiyuan li

Online Structured Laplace Approximations for Overcoming Catastrophic Forgetting

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #135

Poster – In Thu Poster Session B

Hippolyt Ritter · Aleksandar Botev · David Barber

Approximating Real-Time Recurrent Learning with Random Kronecker Factors

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #136

Poster – In Thu Poster Session B

Asier Mujika · Florian Meier · Angelika Steger

Online Reciprocal Recommendation with Theoretical Performance Guarantees

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #137

Poster – In Thu Poster Session B

Claudio Gentile · Nikos Parotsidis · Fabio Vitale

Generalized Inverse Optimization through Online Learning

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #138

Poster – In Thu Poster Session B

Chaosheng Dong · Yiran Chen · Bo Zeng

Adaptive Online Learning in Dynamic Environments

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #139

Poster – In Thu Poster Session B

Lijun Zhang · Shiyin Lu · Zhi-Hua Zhou

Online convex optimization for cumulative constraints

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #140

Poster – In Thu Poster Session B

Jianjun Yuan · Andrew Lamperski

Efficient online algorithms for fast-rate regret bounds under sparsity

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #141

Poster – In Thu Poster Session B

Pierre Gaillard · Olivier Wintenberger

Regret Bounds for Online Portfolio Selection with a Cardinality Constraint

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #142

Poster – In Thu Poster Session B

Shinji Ito · Daisuke Hatano · Sumita Hanna · Akihiro Yabe · Takuro Fukunaga · Naonori Kakimura · Ken-Ichi Kawarabayashi

Policy Regret in Repeated Games

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #144

Poster – In Thu Poster Session B

Raman Arora · Michael Dinitz · Teodor Vanislavov Marinov · Mehryar Mohri

Query Complexity of Bayesian Private Learning

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #145
Poster – In Thu Poster Session B
Kuang Xu

The Limits of Post-Selection Generalization

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #146
Poster – In Thu Poster Session B
Jonathan Ullman · Adam Smith · Kobbi Nissim · Uri Stemmer · Thomas Steinke

Sequential Test for the Lowest Mean: From Thompson to Murphy Sampling

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #147
Poster – In Thu Poster Session B
Emilie Kaufmann · Wouter Koolen · Aurélien Garivier

Contextual Combinatorial Multi-armed Bandits with Volatile Arms and Submodular Reward

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #148
Poster – In Thu Poster Session B
Lixing Chen · Jie Xu · Zhuo Lu

TopRank: A practical algorithm for online stochastic ranking

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #149
Poster – In Thu Poster Session B
Tor Lattimore · Branislav Kveton · Shuai Li · Csaba Szepesvari

A Bandit Approach to Sequential Experimental Design with False Discovery Control

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #150
Poster – In Thu Poster Session B
Kevin Jamieson · Lalit Jain

Adaptation to Easy Data in Prediction with Limited Advice

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #151
Poster – In Thu Poster Session B
Tobias Thune · Yevgeny Seldin

Differentially Private Contextual Linear Bandits

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #152
Poster – In Thu Poster Session B
Roshan Shariff · Or Sheffet

Community Exploration: From Offline Optimization to Online Learning

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #153
Poster – In Thu Poster Session B
Xiaowei Chen · Weiran Huang · Wei Chen · John C. S. Lui

Adaptive Learning with Unknown Information Flows

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #154
Poster – In Thu Poster Session B
Yonatan Gur · Ahmadreza Momeni

Multi-armed Bandits with Compensation

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #155
Poster – In Thu Poster Session B
Siwei Wang · Longbo Huang

Bandit Learning with Implicit Feedback

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #156
Poster – In Thu Poster Session B
Yi Qi · Qingyun Wu · Hongning Wang · Jie Tang · Maosong Sun

Optimistic optimization of a Brownian

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #157
Poster – In Thu Poster Session B
Jean-Bastien Grill · Michal Valko · Remi Munos

Bandit Learning with Positive Externalities

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #158
Poster – In Thu Poster Session B
Virag Shah · Jose Blanchet · Ramesh Johari

An Information-Theoretic Analysis for Thompson Sampling with Many Actions

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #159
Poster – In Thu Poster Session B
Shi Dong · Benjamin Van Roy

Distributed Multi-Player Bandits - a Game of Thrones Approach

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #160
Poster – In Thu Poster Session B
Ilai Bistriz · Amir Leshem

PG-TS: Improved Thompson Sampling for Logistic Contextual Bandits

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #161
Poster – In Thu Poster Session B
Bianca Dumitrascu · Karen Feng · Barbara Engelhardt

Non-delusional Q-learning and value-iteration

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #162
Poster – In Thu Poster Session B
Tyler Lu · Dale Schuurmans · Craig Boutilier

Differentiable MPC for End-to-end Planning and Control

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #163
Poster – In Thu Poster Session B
Brandon Amos · Ivan Jimenez · Jacob I Sacks · Byron Boots · J. Zico Kolter

Multiple-Step Greedy Policies in Approximate and Online Reinforcement Learning

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #164
Poster – In Thu Poster Session B
Yonathan Efroni · Gal Dalal · Bruno Scherrer · Shie Mannor

Deep Reinforcement Learning in a Handful of Trials using Probabilistic Dynamics Models

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #165
Poster – In Thu Poster Session B
Kurtland Chua · Roberto Calandra · Rowan McAllister · Sergey Levine

Learning convex bounds for linear quadratic control policy synthesis

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #166
Poster – In Thu Poster Session B
Jack Umenberger · Thomas Sch?n

Sample-Efficient Reinforcement Learning with Stochastic Ensemble Value Expansion

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #167
Poster – In Thu Poster Session B
Jacob Buckman · Danijar Hafner · George Tucker · Eugene Brevdo · Honglak Lee

Policy-Conditioned Uncertainty Sets for Robust Markov Decision Processes

Thu Dec 6th 05:00 – 07:00 PM @ Room 210 & 230 AB #168
Poster – In Thu Poster Session B
Andrea Tirinzoni · Marek Petrik · Xiangli Chen · Brian Ziebart

