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 Vi?gas · 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 AB #167

In Tue Demonstrations

Tue Dec 4th 10:45 AM – 07:30 PM @ Room 510 ABCD #D9 – Tue Dec 4th 10:45 AM – 07:30 PM @ Room 510 ABCD #D5

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

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

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 · Chintan Trivedi

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

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 C?t? · Wendy Tay · Eric Yuan

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

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

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

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

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 #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 #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 #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 517 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 #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 517 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 517 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 517 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 #1

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 Chattoraj · Ralf
Haefner
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 #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 #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 517 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 517 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 517 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 Houthooft · Yuhua Chen · Phillip Isola · Bradly Stadie · Filip
Wolski · OpenAI Jonathan Ho · Pieter Abbeel
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 210 #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 517 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 #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 #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 #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 #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 #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 #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 Podoprikhin · Dmitry
Vetrov · Andrew Wilson
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 517 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 #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 #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 #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 #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 #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 517 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 517 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 517 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 517 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 #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 #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 #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 #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 #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 517 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 #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
Kirthevasan Kandasamy · Willie Neiswanger · Jeff Schneider · Barnabas Poczos · Eric Xing
Poster Tue Dec 4th 05:00 – 07:00 PM @ Room 517 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 517 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 517 AB #164

Wed Dec 5th

Reproducible, Reusable, and Robust Reinforcement Learning

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

Coffee Break

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

In Wed Track 1 – Session 1

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

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

Wed Dec 5th 09:45 – 09:50 AM @ Room 220 CD
Spotlight – In Wed Track 1 – Session 1
Sampath Kannan · Jamie Morgenstern · Aaron Roth · Bo Waggoner · Zhiwei Steven Wu
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 517 AB #159

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

Wed Dec 5th 09:50 – 09:55 AM @ Room 220 CD
Spotlight – In Wed Track 1 – Session 1
Han Shao · Xiaotian Yu · Irwin King · Michael Lyu
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 517 AB #158

End-to-End Differentiable Physics for Learning and Control

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

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

Wed Dec 5th 10:00 – 10:05 AM @ Room 220 CD
Spotlight – In Wed Track 1 – Session 1
Ronan Fruit · Matteo Pirotta · Alessandro Lazaric
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 517 AB #161

Exploration in Structured Reinforcement Learning

Wed Dec 5th 10:05 – 10:20 AM @ Room 220 CD
Oral – In Wed Track 1 – Session 1
Jungseul Ok · Alexandre Proutiere · Damianos Tranos
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 517 AB #160

Acceleration through Optimistic No-Regret Dynamics

Wed Dec 5th 10:20 – 10:25 AM @ Room 220 CD
Spotlight – In Wed Track 1 – Session 1
Jun-Kun Wang · Jacob Abernethy
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 517 AB #156

On Oracle-Efficient PAC RL with Rich Observations

Wed Dec 5th 10:25 – 10:30 AM @ Room 220 CD
Spotlight – In Wed Track 1 – Session 1
Christoph Dann · Nan Jiang · Akshay Krishnamurthy · Alekh Agarwal · John Langford · Robert Schapire
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 517 AB #111

Constant Regret, Generalized Mixability, and Mirror Descent

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

Efficient Online Portfolio with Logarithmic Regret

Wed Dec 5th 10:35 – 10:40 AM @ Room 220 CD
Spotlight – In Wed Track 1 – Session 1
Haipeng Luo · Chen-Yu Wei · Kai Zheng
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 517 AB #157

Solving Large Sequential Games with the Excessive Gap Technique

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

In Wed Track 2 – Session 1

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

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

Wed Dec 5th 09:45 – 09:50 AM @ Room 220 E
Spotlight – In Wed Track 2 – Session 1
Andrei Zanfir · Elisabeta Marinoiu · Mihai Zanfir · Alin-Ionut Popa · Cristian Sminchisescu
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 517 AB #120

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

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

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

Wed Dec 5th 09:55 – 10:00 AM @ Room 220 E
Spotlight – In Wed Track 2 – Session 1
Seonghyeon Nam · Yunji Kim · Seon Joo Kim
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 517 AB #126

Neighbourhood Consensus Networks

Wed Dec 5th 10:00 – 10:05 AM @ Room 220 E
Spotlight – In Wed Track 2 – Session 1
Ignacio Rocco · Mircea Cimpoi · Relja Arandjelovic? · Akihiko Torii · Tomas Pajdla · Josef Sivic
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 517 AB #118

Visual Memory for Robust Path Following

Wed Dec 5th 10:05 – 10:20 AM @ Room 220 E
Oral – In Wed Track 2 – Session 1
Ashish Kumar · Saurabh Gupta · David Fouhey · Sergey Levine · Jitendra Malik
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 517 AB #122

Recurrent Transformer Networks for Semantic Correspondence

Wed Dec 5th 10:20 – 10:25 AM @ Room 220 E
Spotlight – In Wed Track 2 – Session 1
Seungryong Kim · Stephen Lin · SANG RYUL JEON · Dongbo Min · Kwanghoon Sohn
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 517 AB #119

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

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

Sanity Checks for Saliency Maps

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

A Probabilistic U-Net for Segmentation of Ambiguous Images

Wed Dec 5th 10:35 – 10:40 AM @ Room 220 E
Spotlight – In Wed Track 2 – Session 1
Simon Kohl · Bernardino Romera-Paredes · Clemens Meyer · Jeffrey
De Fauw · Joseph R. Ledsam · Klaus Maier-Hein · S. M. Ali Eslami
· Danilo Jimenez Rezende · Olaf Ronneberger
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 517 AB #127

Virtual Class Enhanced Discriminative Embedding Learning

Wed Dec 5th 10:40 – 10:45 AM @ Room 220 E
Spotlight – In Wed Track 2 – Session 1
Binghui Chen · Weihong Deng · Haifeng Shen
Poster Wed Dec 5th 10:45 AM – 12:45 PM @ Room 517 AB #130

In Wed Track 3 – Session 1

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

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

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

Leveraged volume sampling for linear regression

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

Synthesize Policies for Transfer and Adaptation across Tasks
and Environments

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

Sublinear Time Low-Rank Approximation of Distance Matrices

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

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

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

Minimax Statistical Learning with Wasserstein distances

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

Generalization Bounds for Uniformly Stable Algorithms

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

A loss framework for calibrated anomaly detection

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

Sharp Bounds for Generalized Uniformity Testing

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

Convex Elicitation of Continuous Properties

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

In Wed Demonstrations

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

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

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

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

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

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

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

PatentAI: IP Infringement Detection with Enhanced Paraphrase
Identification

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

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

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

Autonomous robotic manipulation with a desktop research
platform

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

Multi-Word Imputation and Sentence Expansion

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

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

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

Play Imperfect Information Games against Neural Networks

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

A Cooperative Visually Grounded Dialogue Game with a Humanoid Robot

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

Investigations into the Human-AI Trust Phenomenon

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

Coffee Break

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

In Wed Track 1 – Session 2

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

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

Wed Dec 5th 03:30 – 03:35 PM @ Room 220 CD
Spotlight – In Wed Track 1 – Session 2
Qiang Liu · Lihong Li · Ziyang Tang · Dengyong Zhou
Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 517 AB #121

Graph Convolutional Policy Network for Goal-Directed Molecular Graph Generation

Wed Dec 5th 03:35 – 03:40 PM @ Room 220 CD
Spotlight – In Wed Track 1 – Session 2
Jiaxuan You · Bowen Liu · Zhitao Ying · Vijay Pande · Jure Leskovec
Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 517 AB #140

Memory Augmented Policy Optimization for Program Synthesis and Semantic Parsing

Wed Dec 5th 03:40 – 03:45 PM @ Room 220 CD
Spotlight – In Wed Track 1 – Session 2
Chen Liang · Mohammad Norouzi · Jonathan Berant · Quoc V Le ·
Ni Lao
Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 517 AB #137

Meta-Reinforcement Learning of Structured Exploration Strategies

Wed Dec 5th 03:45 – 03:50 PM @ Room 220 CD
Spotlight – In Wed Track 1 – Session 2
Abhishek Gupta · Russell Mendonca · YuXuan Liu · Pieter Abbeel
· Sergey Levine
Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 517 AB #134

Policy Optimization via Importance Sampling

Wed Dec 5th 03:50 – 04:05 PM @ Room 220 CD
Oral – In Wed Track 1 – Session 2
Alberto Maria Metelli · Matteo Papini · Francesco Faccio · Marcello
Restelli
Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 517 AB #109

A Bayesian Approach to Generative Adversarial Imitation Learning

Wed Dec 5th 04:05 – 04:10 PM @ Room 220 CD
Spotlight – In Wed Track 1 – Session 2
Wonseok Jeon · Seokin Seo · Kee-Eung Kim
Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 517 AB #129

Visual Reinforcement Learning with Imagined Goals

Wed Dec 5th 04:10 – 04:15 PM @ Room 220 CD
Spotlight – In Wed Track 1 – Session 2
Ashvin Nair · Vitchyr Pong · Murtaza Dalal · Shikhar Bahl · Steven
Lin · Sergey Levine
Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 517 AB #141

Randomized Prior Functions for Deep Reinforcement Learning

Wed Dec 5th 04:15 – 04:20 PM @ Room 220 CD
Spotlight – In Wed Track 1 – Session 2
Ian Osband · John Aslanides · Albin Cassirer
Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 517 AB #154

Playing hard exploration games by watching YouTube

Wed Dec 5th 04:20 – 04:25 PM @ Room 220 CD
Spotlight – In Wed Track 1 – Session 2
Yusuf Aytar · Tobias Pfaff · David Budden · Thomas Paine · Ziyu
Wang · Nando de Freitas
Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 517 AB #142

Recurrent World Models Facilitate Policy Evolution

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

Reducing Network Agnostophobia

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

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

Wed Dec 5th 04:45 – 04:50 PM @ Room 220 CD
Spotlight – In Wed Track 1 – Session 2
Alessandro Achille · Tom Eccles · Loic Matthey · Chris Burgess ·
Nicholas Watters · Alexander Lerchner · Irina Higgins
Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 517 AB #101

Geometrically Coupled Monte Carlo Sampling

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

Scalable Laplacian K-modes

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

In Wed Track 2 – Session 2

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

Dynamic Network Model from Partial Observations

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

Stochastic Nonparametric Event-Tensor Decomposition

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

On GANs and GMMs

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

GILBO: One Metric to Measure Them All

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

Isolating Sources of Disentanglement in Variational
Autoencoders

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

Sparse Covariance Modeling in High Dimensions with Gaussian
Processes

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

Efficient High Dimensional Bayesian Optimization with
Additivity and Quadrature Fourier Features

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

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

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

Adversarially Robust Optimization with Gaussian Processes

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

Approximate Knowledge Compilation by Online Collapsed
Importance Sampling

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

DAGs with NO TEARS: Continuous Optimization for Structure
Learning

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

Proximal Graphical Event Models

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

Heterogeneous Multi-output Gaussian Process Prediction

Wed Dec 5th 04:50 – 04:55 PM @ Room 220 E
Spotlight – In Wed Track 2 – Session 2
Pablo Moreno-Mu?oz · Antonio Art?s · Mauricio ?lvarez
Poster Wed Dec 5th 05:00 – 07:00 PM @ Room 210 #14

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

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

In Wed Track 3 – Session 2

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

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

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

Contextual Stochastic Block Models

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

Entropy Rate Estimation for Markov Chains with Large State
Space

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

Blind Deconvolutional Phase Retrieval via Convex Programming

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

Stochastic Cubic Regularization for Fast Nonconvex Optimization

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

Stochastic Nested Variance Reduced Gradient Descent for
Nonconvex Optimization

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

On the Local Minima of the Empirical Risk

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

How Much Restricted Isometry is Needed In Nonconvex Matrix
Recovery?

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

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

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

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

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

Natasha 2: Faster Non-Convex Optimization Than SGD

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

Escaping Saddle Points in Constrained Optimization

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

On Coresets for Logistic Regression

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

Legendre Decomposition for Tensors

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

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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 517 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 #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 Merrienboer · Olivier Breuleux · Arnaud Bergeron · Pascal Lamblin
Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 210 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #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 #78

Distributed k-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 #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 #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 #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 517 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 517 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 517 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 · Cl?ment Luneau · jean barbier · Nicolas Macris · Florent Krzakala · Lenka Zdeborov?
Poster Thu Dec 6th 10:45 AM – 12:45 PM @ Room 517 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 517 AB #111

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 #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 517 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 517 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 #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 517 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 517 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 517 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 517 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 517 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 517 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 #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 #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 · Kasper Green Larsen
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 #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 #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 #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 #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 #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 #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 Snavely · Jonathan Tompson · Mo-
hammad Norouzi
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 #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 #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 #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 517 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 Tenen-
baum
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 #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 Tenen-
baum · Bill Freeman · Jiajun Wu
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 #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 #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 #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 #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 517 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 #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 #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 #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 #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 Mas-
souli? · Yin Tat Lee
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 #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 #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 #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 #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 #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 Pumir · Samy Jelassi · Nicolas Boumal
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 #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 #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 · Ce-
sar Uribe · Angelia Nedich
Poster Thu Dec 6th 05:00 – 07:00 PM @ Room 210 #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 #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 #4

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