

CyberValley

ICML 2021: Papers from Cyber Valley partner institutions

1. **Neural Symbolic Regression that Scales**
Luca Biggio (ETH Zurich), Tommaso Bendinelli (CSEM), Alexander Neitz (MPI for Intelligent Systems), Aurelien Lucchi, Giambattista Parascandolo (ETH Zurich)
2. **A Gradient Based Strategy for Hamiltonian Monte Carlo Hyperparameter Optimization**
Andrew Campbell (University of Oxford), Wenlong Chen (Baidu, Inc.), Vincent Stimper (MPI for Intelligent Systems, University of Cambridge), Jose Miguel Hernandez-Lobato (University of Cambridge), Yichuan Zhang (Boltzbit Ltd.)
3. **Generalised Lipschitz Regularisation Equals Distributional Robustness**
Zac Cranko (Universität Tübingen), Zhan Shi (University of Illinois at Chicago), Xinhua Zhang (University of Illinois at Chicago), Richard Nock (Google Brain), Simon Kornblith (Google Brain)
4. **Mind the box: l1-APGD for sparse adversarial attacks on image classifiers**
Francesco Croce (University of Tübingen), Matthias Hein (University of Tübingen)
5. **Bayesian Deep Learning via Subnetwork Inference**
Erik Daxberger (University of Cambridge & MPI for Intelligent Systems, Tübingen), Eric Nalisnick (University of Amsterdam), James U Allingham (University of Cambridge), Javier Antorán (University of Cambridge), Jose Miguel Hernandez-Lobato (University of Cambridge)
6. **High-Dimensional Gaussian Process Inference with Derivatives**
Filip de Roos (University of Tübingen), Alexandra Gessner (University of Tübingen), Philipp Hennig (University of Tübingen and MPI for Intelligent Systems)
7. **Bayesian Quadrature on Riemannian Data Manifolds**
Christian Fröhlich (University of Tübingen), Alexandra Gessner, Philipp Hennig (University of Tübingen, MPI for Intelligent Systems), Bernhard Schölkopf, Georgios Arvanitidis (MPI for Intelligent Systems)
8. **Function Contrastive Learning of Transferable Meta-Representations**
Waleed Gondal, Shruti Joshi, Nasim Rahaman (MPI for Intelligent Systems), Stefan Bauer (MPI for Intelligent Systems and CIFAR Azrieli Global Scholar), Manuel Wuethrich, Bernhard Schölkopf (MPI for Intelligent Systems)
9. **Efficient Message Passing for 0–1 ILPs with Binary Decision Diagrams**
Jan-Hendrik Lange (University of Tübingen), Paul Swoboda (MPI for Informatics)
10. **MorphVAE: Generating Neural Morphologies from 3D-Walks using a Variational Autoencoder with Spherical Latent**
Sophie Latus and Philipp Berens (University of Tübingen)
11. **Necessary and sufficient conditions for causal feature selection in time series with latent common causes**
Atalanti Mastakouri (Amazon Research Tübingen), Bernhard Schölkopf (MPI for Intelligent Systems), Dominik Janzing (Amazon)
12. **Proximal Causal Learning with Kernels: Two-Stage Estimation and Moment Restriction**
Afsaneh Mastouri (UCL), Yuchen Zhu (UCL), Limor Gultchin (University of Oxford, Alan Turing Institute), Anna Korba (ENSAE/CREST), Ricardo Silva (UCL), Matt J. Kusner (UCL), Arthur Gretton (UCL), Krikamol Muandet (MPI for Intelligent Systems)

13. **Function Contrastive Learning of Transferable Meta-Representations**
Muhammad Waleed Gondal (MPI for Intelligent Systems), Shruti Joshi (MPI for Intelligent Systems), Nasim Rahaman (MPI for Intelligent Systems), Stefan Bauer (MPI for Intelligent Systems), Manuel Wuthrich (MPI for Intelligent Systems), Bernhard Schölkopf (MPI for Intelligent Systems)
14. **Conditional Distributional Treatment Effect with Kernel Conditional Mean Embeddings and U-Statistic Regression**
Junhyung Park (MPI for Intelligent Systems), Uri Shalit (Technion Israel Institute of Technology), Bernhard Schoelkopf, Krikamol Muandet (MPI for Intelligent Systems)
15. **CombOptNet: Fit the Right NP-Hard Problem by Learning Integer Programming Constraints**
Anselm Paulus (MPI for Intelligent Systems), Michal Rolinek (MPI for Intelligent Systems), Vit Musil (Masaryk University), Brandon Amos (Facebook AI Research), Georg Martius (MPI for Intelligent Systems)
16. **Neuro-algorithmic Policies Enable Fast Combinatorial Generalization**
Marin Vlastelica Pogancic (MPI for Intelligent Systems), Michal Rolinek (MPI for Intelligent Systems), Georg Martius (MPI for Intelligent Systems)
17. **Neural Transformation Learning for Deep Anomaly Detection beyond Images**
Chen Qiu (Bosch Center for AI, TU Kaiserslautern), Timo Pfrommer (Bosch Center for AI), Marius Kloft (TU Kaiserslautern), Stefan Mandt (UC Irvine), Maja Rudolph (Bosch Center for AI)
18. **Simultaneous Similarity-based Self-Distillation for Deep Metric Learning**
Karsten Roth (Heidelberg University, University of Tübingen), Timo Milbich (Heidelberg University), Bjorn Ommer (Heidelberg University), Joseph Paul Cohen (Mila, University of Montreal), Marzyeh Ghassemi (MIT)
19. **Descending through a Crowded Valley - Benchmarking Deep Learning Optimizers**
Robin M Schmidt (University of Tübingen), Frank Schneider (University of Tübingen), Philipp Hennig (University of Tübingen)
20. **Causal Curiosity: RL Agents Discovering Self-supervised Experiments for Causal Representation Learning**
Sumedh Sontakke (University of Southern California), Arash Mehrjou (MPI for Intelligent Systems), Laurent Itti (University of Southern California), Bernhard Schölkopf (MPI for Intelligent Systems)
21. **On Disentangled Representations Learned from Correlated Data**
Frederik Träuble (MPI for Intelligent Systems), Elliot Creager (University of Toronto), Niki Kilbertus (Helmholtz AI), Francesco Locatello (Amazon), Andrea Dittadi (Technical University of Denmark), Anirudh Goyal (Université de Montréal), Bernhard Schölkopf (MPI for Intelligent Systems), Stefan Bauer (MPI for Intelligent Systems)
22. **Demystifying Inductive Biases for (Beta-)VAE Based Architectures**
Dominik Zietlow (MPI for Intelligent Systems), Michal Rolinek (MPI for Intelligent Systems), Georg Martius (MPI for Intelligent Systems)
23. **Contrastive Learning Inverts the Data Generating Process**
Roland Zimmermann (University of Tübingen, International Max Planck Research School for Intelligent Systems), Yash Sharma (University of Tübingen), Steffen Schneider (University of Tübingen), Wieland Brendel (University of Tübingen), Matthias Bethge (University of Tübingen)