

IJCAI-PRICAI 2020 Accepted papers

Main track (Agent-based and Multi-agent Systems)

A Deep Reinforcement Learning Approach to Concurrent Bilateral Negotiation *Pallavi Bagga, Nicola Paoletti, Bedour Alrayes, Kostas Stathis*

A Multi-Objective Approach to Mitigate Negative Side Effects *Sandhya Saisubramanian, Ece Kamar, Shlomo Zilberstein*

A Penny for Your Thoughts: The Value of Communication in Ad Hoc Teamwork *Reuth Mirsky, William Macke, Andy Wang, Harel Yedidsion, Peter Stone*

Almost Group Envy-free Allocation of Indivisible Goods and Chores *Haris Aziz, Simon Rey*

Altruism in Coalition Formation Games *Anna Maria Kerkmann, Jörg Rothe*

An Algorithm for Multi-Attribute Diverse Matching *Saba Ahmadi, Faez Ahmed, John P. Dickerson, Mark Fuge, Samir Khuller*

Approximate Pareto Set for Fair and Efficient Allocation: Few Agent Types or Few Resource Types *Trung Thanh Nguyen, Jörg Rothe*

Assume-Guarantee Synthesis for Prompt Linear Temporal Logic *Nathanaël Fijalkow, Bastien Maubert, Aniello Murano, Moshe Vardi*

Biased Opinion Dynamics: When the Devil is in the Details *Aris Anagnostopoulos, Luca Becchetti, Emilio Cruciani, Francesco Pasquale, Sara Rizzo*

Budgeted Facility Location Games with Strategic Facilities *Minming Li, Chenhao Wang, Mengqi Zhang*

Combining Direct Trust and Indirect Trust in Multi-Agent Systems *Elham Parhizkar, Mohammad Hossein Nikravan, Robert C. Holte, Sandra Zilles*

Competition Among Contests: a Safety Level Analysis *Ron Lavi, Omer Shiran-Shvarzbard*

Computational Aspects of Conditional Minisum Approval Voting in Elections with Interdependent Issues *Evangelos Markakis, Georgios Papasotiropoulos*

Concentration of Distortion: The Value of Extra Voters in Randomized Social Choice *Brandon Fain, William Fan, Kamesh Munagala*

Convexity of b-matching Games *Soh Kumabe, Takanori Maehara*

Decentralized MCTS via Learned Teammate Models *Aleksander Czechowski, Frans A. Oliehoek*

Dinkelbach-Type Algorithm for Computing Quantal Stackelberg Equilibrium *Jakub Cerny, Viliam Lisý, Branislav Bošanský, Bo An*

Efficient Algorithms for Learning Revenue-Maximizing Two-Part Tariffs *Maria-Florina Balcan, Siddharth Prasad, Tuomas Sandholm*

Ethics, Prosperity, and Society: Moral Evaluation Using Virtue Ethics and Utilitarianism *Aditya Hegde, Vibhav Agarwal, Shrisha Rao*

Evaluating Approval-Based Multiwinner Voting in Terms of Robustness to Noise *Ioannis Caragiannis, Christos Kaklamanis, Nikos Karanikolas, George A. Krimpas*

Evaluating Committees for Representative Democracies: the Distortion and Beyond *Michał Jaworski, Piotr Skowron*

Fair Division of Time: Multi-layered Cake Cutting *Hadi Hosseini, Ayumi Igarashi, Andrew Searns*

Fine-Grained View on Bribery for Group Identification *Niclas Boehmer, Robert Bredereck, Dušan Knop, Junjie Luo*

Flow-Based Network Creation Games *Hagen Echzell, Tobias Friedrich, Pascal Lenzner, Anna Melnichenko*

Formalizing Group and Propagated Trust in Multi-Agent Systems *Nagat Drawel, Jamal Bentahar, Amine Laarej, Gaith Rjoub*

Incentive-Compatible Diffusion Auctions *Bin Li, Dong Hao, Dengji Zhao*

Intention Progression under Uncertainty *Yuan Yao, Natasha Alechina, Brian Logan, John Thangarajah*

Keeping Your Friends Close: Land Allocation with Friends *Edith Elkind, Neel Patel, Alan Tsang, Yair Zick*

Learning Optimal Temperature Region for Solving Mixed Integer Functional DCOPs *Saaduddin Mahmud, Md. Mosaddek Khan, Moumita Choudhury, Long Tran-Thanh, Nicholas R. Jennings*

Logics of Allies and Enemies: A Formal Approach to the Dynamics of Social Balance Theory *Wiebe Van der Hoek, Louwe Kuijer, Yi Wang*

Maximizing Welfare with Incentive-Aware Evaluation Mechanisms *Nika Haghtalab, Nicole Immorlica, Brendan Lucier, Jack Z. Wang*

Maximum Nash Welfare and Other Stories About EFX *Georgios Amanatidis, Georgios Birmpas, Aris Filos-Ratsikas, Alexandros Hollender, Alexandros A. Voudouris*

Mechanism Design for School Choice with Soft Diversity Constraints *Haris Aziz, Serge Gaspers, Zhaohong Sun*

Model-Free Real-Time Autonomous Energy Management for a Residential Multi-Carrier Energy System: A Deep Reinforcement Learning Approach *Yujian Ye, Dawei Qiu, Jonathan Ward, Marcin Abram*

Modelling Bounded Rationality in Multi-Agent Interactions by Generalized Recursive Reasoning *Ying Wen, Yaodong Yang, Jun Wang*

Monte-Carlo Tree Search for Scalable Coalition Formation *Feng Wu, Sarvapali D. Ramchurn*

On the complexity of Winner Verification and Candidate Winner for Multiwinner Voting Rules *Chinmay Sonar, Palash Dey, Neeldhara Misra*

Partial Adversarial Behavior Deception in Security Games *Thanh H. Nguyen, Arunesh Sinha, He He*

Participatory Budgeting with Project Interactions *Pallavi Jain, Krzysztof Sornat, Nimrod Talmon*

Peer-Prediction in the Presence of Outcome Dependent Lying Incentives *Naman Goel, Aris Filos-Ratsikas, Boi Faltings*

PeerNomination: Relaxing Exactness for Increased Accuracy in Peer Selection *Nicholas Mattei, Paolo Turrini, Stanislav Zhydkov*

Prophet Inequalities for Bayesian Persuasion *Niklas Hahn, Martin Hoefer, Rann Smorodinsky*

Proportionality in Approval-Based Elections With a Variable Number of Winners *Rupert Freeman, Anson Kahng, David M. Pennock*

Selecting Voting Locations for Fun and Profit *Zack Fitzsimmons, Omer Lev*

Social Ranking Manipulability for the CP-Majority, Banzhaf and Lexicographic Excellence Solutions *Tahar Allouche, Bruno Escoffier, Stefano Moretti, Meltem Öztürk*

Speeding Up Incomplete GDL-based Algorithms for Multi-agent Optimization with Dense Local Utilities *Yanchen Deng, Bo An*

Stable Matchings with Diversity Constraints: Affirmative Action is beyond NP *Jiehua Chen, Robert Ganian, Thekla Hamm*

Stable Roommate Problem with Diversity Preferences *Niclas Boehmer, Edith Elkind*

Strategic Campaign Management in Apportionment Elections *Robert Bredereck, Piotr Faliszewski, Michal Furdyna, Andrzej Kaczmarczyk, Martin Lackner*

Strategyproof Mechanism for Two Heterogeneous Facilities with Constant Approximation Ratio *Minming Li, Pinyan Lu, Yuhao Yao, Jialin Zhang*

Sybil-proof Answer Querying Mechanism *Yao Zhang, Xiuzhen Zhang, Dengji Zhao*

Synthesis of Deceptive Strategies in Reachability Games with Action Misperception *Abhishek N. Kulkarni, Jie Fu*

The Competitive Effects of Variance-based Pricing *Ludwig Dierks, Sven Seuken*

The Complexity of Election Problems with Group-Separable Preferences *Piotr Faliszewski, Alexander Karpov, Svetlana Obraztsova*

Tight Approximation for Proportional Approval Voting *Szymon Dudycz, Pasin Manurangsi, Jan Marcinkowski, Krzysztof Sornat*

Uniform Welfare Guarantees Under Identical Subadditive Valuations *Siddharth Barman, Ranjani G. Sundaram*

Verifying Fault-Tolerance in Probabilistic Swarm Systems *Alessio Lomuscio, Edoardo Pirovano*

Well-Structured Committees *Sushmita Gupta, Pallavi Jain, Saket Saurabh*

When to Follow the Tip: Security Games with Strategic Informants *Weiran Shen, Weizhe Chen, Taoan Huang, Rohit Singh, Fei Fang*

Main track (AI Ethics)

Achieving Outcome Fairness in Machine Learning Models for Social Decision Problems *Boli Fang, Miao Jiang, Pei-yi Cheng, Jerry Shen, Yi Fang*

Individual Fairness Revisited: Transferring Techniques from Adversarial Robustness *Samuel Yeom, Matt Fredrikson*

Metamorphic Testing and Certified Mitigation of Fairness Violations in NLP Models *Pingchuan Ma, Shuai Wang, Jin Liu*

Relation-Based Counterfactual Explanations for Bayesian Network Classifiers *Emanuele Albini, Antonio Rago, Pietro Baroni, Francesca Toni*

WEFE: The Word Embeddings Fairness Evaluation Framework *Pablo Badilla, Felipe Bravo-Marquez, Jorge Pérez*

Main track (Computer Vision)

A 3D Convolutional Approach to Spectral Object Segmentation in Space and Time *Elena Burceanu, Marius Leordeanu*

A Graph-based Interactive Reasoning for Human-Object Interaction Detection *Dongming Yang, Yuexian Zou*

A Similarity Inference Metric for RGB-Infrared Cross-Modality Person Re-identification *Mengxi Jia, Yunpeng Zhai, Shijian Lu, Siwei Ma, Jian Zhang*

Action-Guided Attention Mining and Relation Reasoning Network for Human-Object Interaction Detection *Xue Lin, Qi Zou, Xixia Xu*

AttAN: Attention Adversarial Networks for 3D Point Cloud Semantic Segmentation *Gege Zhang, Qinghua Ma, Licheng Jiao, Fang Liu, Qigong Sun*

BARNet: Bilinear Attention Network with Adaptive Receptive Fields for Surgical Instrument Segmentation *Zhen-Liang Ni, Gui-Bin Bian, Guan-An Wang, Xiao-Hu Zhou, Zeng-Guang Hou, Xiao-Liang Xie, Zhen Li, Yu-Han Wang*

Bi-level Probabilistic Feature Learning for Deformable Image Registration *Risheng Liu, Zi Li, Yuxi Zhang, Xin Fan, Zhongxuan Luo*

Biased Feature Learning for Occlusion Invariant Face Recognition *Changbin Shao, Jing Huo, Lei Qi, Zhen-Hua Feng, Wenbin Li, Chuanqi Dong, Yang Gao*

Bidirectional Adversarial Training for Semi-Supervised Domain Adaptation *Pin Jiang, Aming Wu, Yahong Han, Yunfeng Shao, Meiyu Qi, Bingshuai Li*

Bottom-up and Top-down: Bidirectional Additive Net for Edge Detection *Lianli Gao, Zhilong Zhou, Heng Tao Shen, Jingkuan Song*

Channel Pruning via Automatic Structure Search *Mingbao Lin, Rongrong Ji, Yuxin Zhang, Baochang Zhang, Yongjian Wu, Yonghong Tian*

Channel-Level Variable Quantization Network for Deep Image Compression *Zhisheng Zhong, Hiroaki Akutsu, Kiyoharu Aizawa*

Characterizing Similarity of Visual Stimulus from Associated Neuronal Response *Vikram Ravindra, Ananth Grama*

Co-Saliency Spatio-Temporal Interaction Network for Person Re-Identification in Videos *Jiawei Liu, Zheng-Jun Zha, Xierong Zhu, Na Jiang*

Collaborative Learning of Depth Estimation, Visual Odometry and Camera Relocalization from Monocular Videos *Haimei Zhao, Wei Bian, Bo Yuan, Dacheng Tao*

Consistent Domain Structure Learning and Domain Alignment for 2D Image-Based 3D Objects Retrieval *Yuting Su, Yuqian Li, Dan Song, Weizhi Nie, Wenhui Li, An-An Liu*

CP-NAS: Child-Parent Neural Architecture Search for 1-bit CNNs *Li'an Zhuo, Baochang Zhang, Hanlin Chen, Linlin Yang, Chen Chen, Yanjun Zhu, David Doermann*

Cross-denoising Network against Corrupted Labels in Medical Image Segmentation with Domain Shift *Qinming Zhang, Luyan Liu, Kai Ma, Cheng Zhuo, Yefeng Zheng*

DAM: Deliberation, Abandon and Memory Networks for Generating Detailed and Non-repetitive Responses in Visual Dialogue *Xiaoze Jiang, Jing Yu, Yajing Sun, Zengchang Qin, Zihao Zhu, Yue Hu, Qi Wu*

Deep Interleaved Network for Single Image Super-Resolution with Asymmetric Co-Attention *Feng Li, Runmin Cong, Huihui Bai, Yifan He*

Deep Polarized Network for Supervised Learning of Accurate Binary Hashing Codes *Lixin Fan, Kam Woh Ng, Ce Ju, Tianyu Zhang, Chee Seng Chan*

Detecting Adversarial Attacks via Subset Scanning of Autoencoder Activations and Reconstruction Error *Celia Cintas, Skyler Speakman, Victor Akinwande, William Ogallo, Komminist Weldemariam, Srihari Sridharan, Edward McFowland*

Diagnosing the Environment Bias in Vision-and-Language Navigation *Yubo Zhang, Hao Tan, Mohit Bansal*

DIDFuse: Deep Image Decomposition for Infrared and Visible Image Fusion *Zixiang Zhao, Shuang Xu, Chunxia Zhang, Junmin Liu, Jianshe Zhang, Pengfei Li*

Disentangled Feature Learning Network for Vehicle Re-Identification *Yan Bai, Yihang Lou, Yongxing Dai, Jun Liu, Ziqian Chen, Ling-Yu Duan*

Dress like an Internet Celebrity: Fashion Retrieval in Videos *Hongrui Zhao, Jin Yu, Yanan Li, Donghui Wang, Jie Liu, Hongxia Yang, Fei Wu*

Dynamic Language Binding in Relational Visual Reasoning *Thao Minh Le, Vuong Le, Svetha Venkatesh, Truyen Tran*

E3SN: Efficient End-to-End Siamese Network for Video Object Segmentation *Meng Lan, Yipeng Zhang, Qinning Xu, Lefei Zhang*

EViLBERT: Learning Task-Agnostic Multimodal Sense Embeddings *Agostina Calabrese, Michele Bevilacqua, Roberto Navigli*

Exploiting Visual Semantic Reasoning for Video-Text Retrieval *Zerun Feng, Zhimin Zeng, Caili Guo, Zheng Li*

Feature Augmented Memory with Global Attention Network for VideoQA *Jiayin Cai, Chun Yuan, Cheng Shi, Lei Li, Yangyang Cheng, Ying Shan*

Few-shot Human Motion Prediction via Learning Novel Motion Dynamics *Chuanqi Zang, Mingtao Pei, Yu Kong*

Few-shot Visual Learning with Contextual Memory and Fine-grained Calibration *Yuqing Ma, Wei Liu, Shihao Bai, Qingyu Zhang, Aishan Liu, Weimin Chen, Xianglong Liu*

G2RL: Geometry-Guided Representation Learning for Facial Action Unit Intensity Estimation *Yingruo Fan, Zhaojiang Lin*

Generating Person Images with Appearance-aware Pose Stylizer *Siyu Huang, Haoyi Xiong, Zhi-Qi Cheng, Qingzhong Wang, Xingran Zhou, Bihan Wen, Jun Huan, Dejing Dou*

GestureDet: Real-time Student Gesture Analysis with Multi-dimensional Attention-based Detector *Rui Zheng, Fei Jiang, Ruimin Shen*

GSM: Graph Similarity Model for Multi-Object Tracking *Qiankun Liu, Qi Chu, Bin Liu, Nenghai Yu*

HAF-SVG: Hierarchical Stochastic Video Generation with Aligned Features *Zhihui Lin, Chun Yuan, Maomao Li*

Hierarchical Attention Based Spatial-Temporal Graph-to-Sequence Learning for Grounded Video Description *Kai Shen, Lingfei Wu, Fangli Xu, Siliang Tang, Jun Xiao, Yueting Zhuang*

Hierarchical Instance Feature Alignment for 2D Image-Based 3D Shape Retrieval *Heyu Zhou, Weizhi Nie, Wenhui Li, Dan Song, An-An Liu*

Human Consensus-Oriented Image Captioning *Ziwei Wang, Zi Huang, Yadan Luo*

JPEG Artifacts Removal via Compression Quality Ranker-Guided Networks *Menglu Wang, Xueyang Fu, Zepei Sun, Zheng-Jun Zha*

k-SDPP: Fixed-Size Video Summarization via Sequential Determinantal Point Processes *Jiping Zheng, Ganfeng Lu*

Label-Attended Hashing for Multi-Label Image Retrieval *Yanzhao Xie, Yu Liu, Yangtao Wang, Lianli Gao, Peng Wang, Ke Zhou*

Large Scale Audiovisual Learning of Sounds with Weakly Labeled Data *Haytham M. Fayek, Anurag Kumar*

Latent Regularized Generative Dual Adversarial Network For Abnormal Detection *Chengwei Chen, Jing Liu, Yuan Xie, Yin Xiao Ban, Chunyun Wu, Yiqing Tao, Haichuan Song*

Learning from the Scene and Borrowing from the Rich: Tackling the Long Tail in Scene Graph Generation *Tao He, Lianli Gao, Jingkuan Song, Jianfei Cai, Yuan-Fang Li*

Learning Task-aware Local Representations for Few-shot Learning *Chuanqi Dong, Wenbin Li, Jing Huo, Zheng Gu, Yang Gao*

Learning to Discretely Compose Reasoning Module Networks for Video Captioning *Ganchao Tan, Daqing Liu, Meng Wang, Zheng-Jun Zha*

Lifelong Zero-Shot Learning *Kun Wei, Cheng Deng, Xu Yang*

Meta Segmentation Network for Ultra-Resolution Medical Images *Tong Wu, Bicheng Dai, Shuxin Chen, Yanyun Qu, Yuan Xie*

Mucko: Multi-Layer Cross-Modal Knowledge Reasoning for Fact-based Visual Question Answering *Zihao Zhu, Jing Yu, Yujing Wang, Yajing Sun, Yue Hu, Qi Wu*

Multi-attention Meta Learning for Few-shot Fine-grained Image Recognition *Yaohui Zhu, Chenlong Liu, Shuqiang Jiang*

Multi-graph Fusion for Functional Neuroimaging Biomarker Detection *Jiangzhang Gan, Xiaofeng Zhu, Rongyao Hu, Yonghua Zhu, Junbo Ma, Ziwen Peng, Guorong Wu*

Multi-Scale Spatial-Temporal Integration Convolutional Tube for Human Action Recognition *Haoze Wu, Jiawei Liu, Xierong Zhu, Meng Wang, Zheng-Jun Zha*

Multichannel Color Image Denoising via Weighted Schatten p-norm Minimization *Xinjian Huang, Bo Du, Weiwei Liu*

Non-Autoregressive Image Captioning with Counterfactuals-Critical Multi-Agent Learning *Longteng Guo, Jing Liu, Xinxin Zhu, Xingjian He, Jie Jiang, Hanqing Lu*

Object-Aware Multi-Branch Relation Networks for Spatio-Temporal Video Grounding *Zhu Zhang, Zhou Zhao, Zhijie Lin, Baoxing Huai, Jing Yuan*

Overcoming Language Priors with Self-supervised Learning for Visual Question Answering *Xi Zhu, Zhendong Mao, Chunxiao Liu, Peng Zhang, Bin Wang, Yongdong Zhang*

Overflow Aware Quantization: Accelerating Neural Network Inference by Low-bit Multiply-Accumulate Operations *Hongwei Xie, Yafei Song, Ling Cai, Mingyang Li*

Pay Attention to Devils: A Photometric Stereo Network for Better Details *Yakun Ju, Kin-Man Lam, Yang Chen, Lin Qi, Junyu Dong*

Polar Relative Positional Encoding for Video-Language Segmentation *Ke Ning, Lingxi Xie, Fei Wu, Qi Tian*

Position-Aware Recalibration Module: Learning From Feature Semantics and Feature Position *Xu Ma, Song Fu*

Progressive Domain-Independent Feature Decomposition Network for Zero-Shot Sketch-Based Image Retrieval *Xinxun Xu, Muli Yang, Yanhua Yang, Hao Wang*

Real-World Automatic Makeup via Identity Preservation Makeup Net *Zhikun Huang, Zhedong Zheng, Chenggang Yan, Hongtao Xie, Yaoqi Sun, Jianzhong Wang, Jiyong Zhang*

Recurrent Relational Memory Network for Unsupervised Image Captioning *Dan Guo, Yang Wang, Peipei Song, Meng Wang*

Reference Guided Face Component Editing *Qiyao Deng, Jie Cao, Yunfan Liu, Zhenhua Chai, Qi Li, Zhenan Sun*

SBAT: Video Captioning with Sparse Boundary-Aware Transformer *Tao Jin, Siyu Huang, Ming Chen, Yingming Li, Zhongfei Zhang*

SceneEncoder: Scene-Aware Semantic Segmentation of Point Clouds with A Learnable Scene Descriptor *Jiachen Xu, Jingyu Gong, Jie Zhou, Xin Tan, Yuan Xie, Lizhuang Ma*

SelectScale: Mining More Patterns from Images via Selective and Soft Dropout *Zhengsu Chen, Jianwei Niu, Xuefeng Liu, Shaojie Tang*

Self-Supervised Gait Encoding with Locality-Aware Attention for Person Re-Identification *Haocong Rao, Siqi Wang, Xiping Hu, Mingkui Tan, Huang Da, Jun Cheng, Bin Hu*

Self-supervised Monocular Depth and Visual Odometry Learning with Scale-consistent Geometric Constraints *Mingkang Xiong, Zhenghong Zhang, Weilin Zhong, Jinsheng Ji, Jiyuan Liu, Huilin Xiong*

Self-Supervised Tuning for Few-Shot Segmentation *Kai Zhu, Wei Zhai, Yang Cao*

Semi-Dynamic Hypergraph Neural Network for 3D Pose Estimation *Shengyuan Liu, Pei Lv, Yuzhen Zhang, Jie Fu, Junjin Cheng, Wanqing Li, Bing Zhou, Mingliang Xu*

Set and Rebase: Determining the Semantic Graph Connectivity for Unsupervised Cross-Modal Hashing *Weiwei Wang, Yuming Shen, Haofeng Zhang, Yazhou Yao, Li Liu*

SimPropNet: Improved Similarity Propagation for Few-shot Image Segmentation *Siddhartha Gairola, Mayur Hemani, Ayush Chopra, Balaji Krishnamurthy*

Spatiotemporal Super-Resolution with Cross-Task Consistency and Its Semi-supervised Extension *Han-Yi Lin, Pi-Cheng Hsiu, Tei-Wei Kuo, Yen-Yu Lin*

Super-Resolution and Inpainting with Degraded and Upgraded Generative Adversarial Networks

Yawen Huang, Feng Zheng, Danyang Wang, Junyu Jiang, Xiaoqian Wang, Ling Shao

Temporal Adaptive Alignment Network for Deep Video Inpainting

Ruixin Liu, Zhenyu Weng, Yuesheng Zhu, Bairong Li

TextFuseNet: Scene Text Detection with Richer Fused Features

Jian Ye, Zhe Chen, Juhua Liu, Bo Du

TLPG-Tracker: Joint Learning of Target Localization and Proposal Generation for Visual Tracking

Siyuan Li, Zhi Zhang, Ziyu Liu, Anna Wang, Linglong Qiu, Feng Du

Transductive Relation-Propagation Network for Few-shot Learning

Yuqing Ma, Shihao Bai, Shan An, Wei Liu, Aishan Liu, Xiantong Zhen, Xianglong Liu

TRP: Trained Rank Pruning for Efficient Deep Neural Networks

Yuhui Xu, Yuxi Li, Shuai Zhang, Wei Wen, Botao Wang, Yingyong Qi, Yiran Chen, Weiyao Lin, Hongkai Xiong

Unsupervised Scene Adaptation with Memory Regularization in vivo

Zhedong Zheng, Yi Yang

Unsupervised Vehicle Re-identification with Progressive Adaptation

Jinjia Peng, Yang Wang, Huibing Wang, Zhao Zhang, Xianping Fu, Meng Wang

Video Question Answering on Screencast Tutorials

Wentian Zhao, Seokhwan Kim, Ning Xu, Hailin Jin

Visual Encoding and Decoding of the Human Brain Based on Shared Features

Chao Li, Baolin Liu, Jianguo Wei

Weakly Supervised Few-shot Object Segmentation using Co-Attention with Visual and Semantic

Embeddings *Mennatullah Siam, Naren Doraiswamy, Boris N. Oreshkin, Hengshuai Yao, Martin Jagersand*

Weakly Supervised Local-Global Relation Network for Facial Expression Recognition

Haifeng Zhang, Wen Su, Jun Yu, Zengfu Wang

When Pedestrian Detection Meets Nighttime Surveillance: A New Benchmark

Xiao Wang, Jun Chen, Zheng Wang, Wu Liu, Shin'ichi Satoh, Chao Liang, Chia-Wen Lin

Zero-Shot Object Detection via Learning an Embedding from Semantic Space to Visual Space

Licheng Zhang, Xianzhi Wang, Lina Yao, Lin Wu, Feng Zheng

Main track (Constraints and SAT)

Automatic Dominance Breaking for a Class of Constraint Optimization Problems

Jimmy Lee, Allen Zhong

Bipartite Encoding: A New Binary Encoding for Solving Non-Binary CSPs

Ruiwei Wang, Roland H.C. Yap

Diversity of Solutions: An Exploration Through the Lens of Fixed-Parameter Tractability Theory

Julien Baste, Michael R. Fellows, Lars Jaffke, Tomáš Masařík, Mateus de Oliveira Oliveira, Geevarghese Philip, Frances A. Rosamond

Early and efficient identification of useless constraint propagation for alldifferent constraints

Xizhe Zhang, Jian Gao, Yizhi Lv, Weixiong Zhang

Extended Conjunctive Normal Form and An Efficient Algorithm for Cardinality Constraints

Zhendong Lei, Shaowei Cai, Chuan Luo

Fast and Parallel Decomposition of Constraint Satisfaction Problems

Georg Gottlob, Cem Okulmus, Reinhard Pichler

Learning Optimal Decision Trees with MaxSAT and its Integration in AdaBoost Hao Hu, Mohamed Siala, Emmanuel Hebrard, Marie-José Huguet

Learning Sensitivity of RCPSP by Analyzing the Search Process Marc-André Ménard, Claude-Guy Quimper, Jonathan Gaudreault

NLocalSAT: Boosting Local Search with Solution Prediction Wenjie Zhang, Zeyu Sun, Qihao Zhu, Ge Li, Shaowei Cai, Yingfei Xiong, Lu Zhang

On Irrelevant Literals in Pseudo-Boolean Constraint Learning Daniel Le Berre, Pierre Marquis, Stefan Mengel, Romain Wallon

Subgraph Isomorphism Meets Cutting Planes: Solving With Certified Solutions Stephan Gocht, Ciaran McCreesh, Jakob Nordström

Main track (Data Mining)

A Sequential Convolution Network for Population Flow Prediction with Explicitly Correlation Modelling Jie Feng, Ziqian Lin, Tong Xia, Funing Sun, Diansheng Guo, Yong Li

A Spatial Missing Value Imputation Method for Multi-view Urban Statistical Data Yongshun Gong, Zhibin Li, Jian Zhang, Wei Liu, Bei Chen, Xiangjun Dong

BANANA: when Behavior ANALysis meets social Network Alignment Fuxin Ren, Zhongbao Zhang, Jiawei Zhang, Sen Su, Li Sun, Guozhen Zhu, Congying Guo

Bilinear Graph Neural Network with Neighbor Interactions Hongmin Zhu, Fuli Feng, Xiangnan He, Xiang Wang, Yan Li, Kai Zheng, Yongdong Zhang

Cause-Effect Association between Event Pairs in Event Datasets Debarun Bhattacharjya, Tian Gao, Nicholas Mattei, Dharmashankar Subramanian

Discrete Embedding for Latent Networks Hong Yang, Ling Chen, Minglong Lei, Lingfeng Niu, Chuan Zhou, Peng Zhang

Domain Adaptive Classification on Heterogeneous Information Networks Shuwen Yang, Guojie Song, Yilun Jin, Lun Du

Enhancing Urban Flow Maps via Neural ODEs Fan Zhou, Liang Li, Ting Zhong, Goce Trajcevski, Kunpeng Zhang, Jiahao Wang

Entity Synonym Discovery via Multipiece Bilateral Context Matching Chenwei Zhang, Yaliang Li, Nan Du, Wei Fan, Philip S. Yu

Evidence-Aware Hierarchical Interactive Attention Networks for Explainable Claim Verification Lianwei Wu, Yuan Rao, Xiong Yang, Wanzhen Wang, Ambreen Nazir

GoGNN: Graph of Graphs Neural Network for Predicting Structured Entity Interactions Hanchen Wang, Defu Lian, Ying Zhang, Lu Qin, Xuemin Lin

Graph Neural Architecture Search Yang Gao, Hong Yang, Peng Zhang, Chuan Zhou, Yue Hu

GraphFlow: Exploiting Conversation Flow with Graph Neural Networks for Conversational Machine Comprehension Yu Chen, Lingfei Wu, Mohammed J. Zaki

GraphSleepNet: Adaptive Spatial-Temporal Graph Convolutional Networks for Sleep Stage Classification Ziyu Jia, Youfang Lin, Jing Wang, Ronghao Zhou, Xiaojun Ning, Yuanlai He, Yaoshuai Zhao

Improving Attention Mechanism in Graph Neural Networks via Cardinality Preservation *Shuo Zhang, Lei Xie*

Inductive Anomaly Detection on Attributed Networks *Kaize Ding, Jundong Li, Nitin Agarwal, Huan Liu*

Inductive Link Prediction for Nodes Having Only Attribute Information *Yu Hao, Xin Cao, Yixiang Fang, Xike Xie, Sibow Wang*

JANE: Jointly Adversarial Network Embedding *Liang Yang, Yuexue Wang, Junhua Gu, Chuan Wang, Xiaochun Cao, Yuanfang Guo*

Joint Representation Learning of Legislator and Legislation for Roll Call Prediction *Yuqiao Yang, Xiaoqiang Lin, Geng Lin, Zengfeng Huang, Changjian Jiang, Zhongyu Wei*

Motif-Preserving Temporal Network Embedding *Hong Huang, Zixuan Fang, Xiao Wang, Youshan Miao, Hai Jin*

MR-GCN: Multi-Relational Graph Convolutional Networks based on Generalized Tensor Product *Zhichao Huang, Xutao Li, Yunming Ye, Michael K. Ng*

Multi-Channel Graph Neural Networks *Kaixiong Zhou, Qingquan Song, Xiao Huang, Daochen Zha, Na Zou, Xia Hu*

Network Schema Preserving Heterogeneous Information Network Embedding *Jianan Zhao, Xiao Wang, Chuan Shi, Zekuan Liu, Yanfang Ye*

On the Enumeration of Association Rules: A Decomposition-based Approach *Yacine Izza, Said Jabbour, Badran Raddaoui, Abdelahmid Boudane*

Online Semi-supervised Multi-label Classification with Label Compression and Local Smooth Regression *Peiyan Li, Honglian Wang, Christian Böhm, Junming Shao*

Opinion Maximization in Social Trust Networks *Pinghua Xu, Wenbin Hu, Jia Wu, Weiwei Liu*

Optimal Region Search with Submodular Maximization *Xuefeng Chen, Xin Cao, Yifeng Zeng, Yixiang Fang, Bin Yao*

Proximal Gradient Algorithm with Momentum and Flexible Parameter Restart for Nonconvex Optimization *Yi Zhou, Zhe Wang, Kaiyi Ji, Yingbin Liang, Vahid Tarokh*

Rebalancing Expanding EV Sharing Systems with Deep Reinforcement Learning *Man Luo, Wenzhe Zhang, Tianyou Song, Kun Li, Hongming Zhu, Bowen Du, Hongkai Wen*

Recovering Accurate Labeling Information from Partially Valid Data for Effective Multi-Label Learning *Ximing Li, Yang Wang*

Robustness of Autoencoders for Anomaly Detection Under Adversarial Impact *Adam Goodge, Bryan Hooi, See Kiong Ng, Wee Siong Ng*

Rumor Detection on Social Media with Graph Structured Adversarial Learning *Xiaoyu Yang, Yuefei Lyu, Tian Tian, Yifei Liu, Yudong Liu, Xi Zhang*

Simultaneous Arrival Matching for New Spatial Crowdsourcing Platforms *Boyang Li, Yurong Cheng, Ye Yuan, Guoren Wang, Lei Chen*

Speeding up Very Fast Decision Tree with Low Computational Cost *Jian Sun, Hongyu Jia, Bo Hu, Xiao Huang, Hao Zhang, Hai Wan, Xibin Zhao*

Understanding the Success of Graph-based Semi-Supervised Learning using Partially Labelled Stochastic Block Model *Avirup Saha, Shreyas Sheshadri, Samik Datta, Niloy Ganguly, Disha Makhija, Priyank Patel*

When Do GNNs Work: Understanding and Improving Neighborhood Aggregation *Yiqing Xie, Sha Li, Carl Yang, Raymond Chi-Wing Wong, Jiawei Han*

Main track (Heuristic Search and Game Playing)

Exploration Based Language Learning for Text-Based Games *Andrea Madotto, Mahdi Namazifar, Joost Huizinga, Piero Molino, Adrien Ecoffet, Huaixiu Zheng, Alexandros Papangelis, Dian Yu, Chandra Khatri, Gokhan Tur*

Intelligent Virtual Machine Provisioning in Cloud Computing *Chuan Luo, Bo Qiao, Xin Chen, Pu Zhao, Randolph Yao, Hongyu Zhang, Wei Wu, Andrew Zhou, Qingwei Lin*

NuCDS: An Efficient Local Search Algorithm for Minimum Connected Dominating Set *Bohan Li, Xindi Zhang, Shaowei Cai, Jinkun Lin, Yiyuan Wang, Christian Blum*

Self-Guided Evolution Strategies with Historical Estimated Gradients *Fei-Yu Liu, Zi-Niu Li, Chao Qian*

Two-goal Local Search and Inference Rules for Minimum Dominating Set *Shaowei Cai, Wenying Hou, Yiyuan Wang, Chuan Luo, Qingwei Lin*

Unsatisfiability Proofs for Weight 16 Codewords in Lam's Problem *Curtis Bright, Kevin K.H. Cheung, Brett Stevens, Ilias Kotsireas, Vijay Ganesh*

Vertex Weighting-Based Tabu Search for p-Center Problem *Qingyun Zhang, Zhipeng Lü, Zhouxing Su, Chumin Li, Yuan Fang, Fuda Ma*

Main track (Humans and AI)

Aggregating Crowd Wisdom with Side Information via a Clustering-based Label-aware Autoencoder *Li'ang Yin, Yunfei Liu, Weinan Zhang, Yong Yu*

Improving Knowledge Tracing via Pre-training Question Embeddings *Yunfei Liu, Yang Yang, Xianyu Chen, Jian Shen, Haifeng Zhang, Yong Yu*

Incorporating Failure Events in Agents' Decision Making to Improve User Satisfaction *Chen Rozenshtein, David Sarne*

Learning Regional Attention Convolutional Neural Network for Motion Intention Recognition Based on EEG Data *Zhijie Fang, Weiqun Wang, Shixin Ren, Jiaxing Wang, Weiguo Shi, Xu Liang, Chen-Chen Fan, Zeng-Guang Hou*

Learning to complement humans *Bryan Wilder, Eric Horvitz, Ece Kamar*

LISNN: Improving Spiking Neural Networks with Lateral Interactions for Robust Object Recognition *Xiang Cheng, Yunzhe Hao, Jiaming Xu, Bo Xu*

Optimal Complex Task Assignment in Service Crowdsourcing *Feilong Tang*

Performance as a Constraint: An Improved Wisdom of Crowds Using Performance Regularization *Jiyi Li, Yasushi Kawase, Yukino Baba, Hisashi Kashima*

Structured Probabilistic End-to-End Learning from Crowds *Zhijun Chen, Huimin Wang, Hailong Sun, Pengpeng Chen, Tao Han, Xudong Liu, Jie Yang*

Main track (Knowledge Representation and Reasoning)

A Dataset Complexity Measure for Analogical Transfer *Fadi Badra*

A Framework for Reasoning about Dynamic Axioms in Description Logics *Bartosz Bednarczyk, Stephane Demri, Alessio Mansutti*

A Fully Rational Account of Structured Argumentation Under Resource Bounds *Marcello D'Agostino, Sanjay Modgil*

A Journey into Ontology Approximation: From Non-Horn to Horn *Anneke Haga, Carsten Lutz, Johannes Marti, Frank Wolter*

A Logic of Directions *Heshan Du, Natasha Alechina, Anthony G. Cohn*

A Modal Logic for Joint Abilities under Strategy Commitments *Zhaoshuai Liu, Liping Xiong, Yongmei Liu, Yves Lespérance, Ronghai Xu, Hongyi Shi*

Adversarial Oracular Seq2seq Learning for Sequential Recommendation *Pengyu Zhao, Tianxiao Shui, Yuanxing Zhang, Kecheng Xiao, Kaigui Bian*

All-Instances Oblivious Chase Termination is Undecidable for Single-Head Binary TGDs *Bartosz Bednarczyk, Robert Ferens, Piotr Ostropolski-Nalewaja*

Answering Counting Queries over DL-Lite Ontologies *Meghyn Bienvenu, Quentin Manière, Michaël Thomazo*

Automatic Synthesis of Generalized Winning Strategies of Impartial Combinatorial Games Using SMT Solvers *Kaisheng Wu, Liangda Fang, Liping Xiong, Zhao-Rong Lai, Yong Qiao, Kaidong Chen, Fei Rong*

Belief Merging Operators as Maximum Likelihood Estimators *Patricia Everaere, Sebastien Konieczny, Pierre Marquis*

Boolean Games: Inferring Agents' Goals Using Taxation Queries *Abhijin Adiga, Sarit Kraus, Oleg Maksimov, S. S. Ravi*

Concurrent Games in Dynamic Epistemic Logic *Bastien Maubert, Sophie Pinchinat, Francois Schwarzentruber, Silvia Stranieri*

Cone Semantics for Logics with Negation *Özgür Lütüf Özüçep, Mena Leemhuis, Diedrich Wolter*

Controllability of Control Argumentation Frameworks *Andreas Niskanen, Daniel Neugebauer, Matti Jarvisalo*

Controlled Query Evaluation in Description Logics Through Instance Indistinguishability *Gianluca Cima, Domenico Lembo, Riccardo Rosati, Domenico Fabio Savo*

Counting Query Answers over a DL-Lite KB *Diego Calvanese, Julien Corman, Davide Lanti, Simon Razniewski*

Deductive Module Extraction for Expressive Description Logics *Patrick Koopmann, Jieying Chen*

Deep Learning for Abstract Argumentation Semantics *Dennis Craandijk, Floris Bex*

Diagnosing Software Faults Using Multiverse Analysis *Prantik Chatterjee, Abhijit Chatterjee, Jose Campos, Rui Abreu, Subhajit Roy*

Enriching Documents with Compact, Representative, Relevant Knowledge Graphs *Shuxin Li, Zixian Huang, Gong Cheng, Evgeny Kharlamov, Kalpa Gunaratna*

Implementing Theory of Mind on a Robot Using Dynamic Epistemic Logic *Lasse Dissing, Thomas Bolander*

Inconsistency Measurement for Improving Logical Formula Clustering *Yakoub Salhi*

Lower Bounds and Faster Algorithms for Equality Constraints *Peter Jonsson, Victor Lagerkvist*

Lower Bounds for Approximate Knowledge Compilation *Alexis de Colnet, Stefan Mengel*

Maximizing the Spread of an Opinion in Few Steps: Opinion Diffusion in Non-Binary Networks
Robert Brederbeck, Lilian Jacobs, Leon Kellerhals

Model-Based Synthesis of Incremental and Correct Estimators for Discrete Event Systems *Stéphanie Roussel, Xavier Pucel, Valentin Bouziat, Louise Travé-Massuyès*

Model-theoretic Characterizations of Existential Rule Languages *Heng Zhang, Yan Zhang, Guifei Jiang*

Neural Entity Summarization with Joint Encoding and Weak Supervision *Junyou Li, Gong Cheng, Qingxia Liu, Wen Zhang, Evgeny Kharlamov, Kalpa Gunaratna, Huajun Chen*

NeurASP: Embracing Neural Networks into Answer Set Programming *Zhun Yang, Adam Ishay, Joohyung Lee*

On Computational Aspects of Iterated Belief Change *Nicolas Schwind, Sebastien Konieczny, Jean-Marie Lagniez, Pierre Marquis*

On Robustness in Qualitative Constraint Networks *Michael Sioutis, Zhiguo Long, Tomi Janhunen*

On the Decidability of Intuitionistic Tense Logic without Disjunction *Fei Liang, Zhe Lin*

On the Learnability of Possibilistic Theories *Cosimo Persia, Ana Ozaki*

Overcoming the Grounding Bottleneck Due to Constraints in ASP Solving: Constraints Become Propagators *Bernardo Cuteri, Carmine Dodaro, Francesco Ricca, Peter Schüller*

Pitfalls of Learning a Reward Function Online *Stuart Armstrong, Jan Leike, Laurent Orseau, Shane Legg*

Provenance for the Description Logic EL_{HR} *Camille Bourgaux, Ana Ozaki, Rafael Penaloza, Livia Predoiu*

Query Answering for Existential Rules via Efficient Datalog Rewriting *Zhe Wang, Peng Xiao, Kewen Wang, Zhiqiang Zhuang, Hai Wan*

Ranking Semantics for Argumentation Systems With Necessities *Dragan Doder, Srdjan Vesic, Madalina Croitoru*

Reasoning Like Human: Hierarchical Reinforcement Learning for Knowledge Graph Reasoning
Guojia Wan, Shirui Pan, Chen Gong, Chuan Zhou, Gholamreza Haffari

Revisiting the Notion of Extension over Incomplete Abstract Argumentation Frameworks *Bettina Fazzinga, Sergio Flesca, Filippo Furfaro*

Rewriting the Description Logic ALCHIQ to Disjunctive Existential Rules *David Carral, Markus Krötzsch*

Semantic Width and the Fixed-Parameter Tractability of Constraint Satisfaction Problems *Hubie Chen, Georg Gottlob, Matthias Lanzinger, Reinhard Pichler*

Smart Voting *Rachael Colley, Umberto Grandi, Arianna Novaro*

Solving Analogies on Words based on Minimal Complexity Transformation *Pierre-Alexandre Murena, Marie Al-Ghossein, Jean-Louis Dessalles, Antoine Cornuéjols*

Switch-List Representations in a Knowledge Compilation Map *Ondřej Čepek, Miloš Chromý*

Synthesizing strategies under expected and exceptional environment behaviors *Benjamin Aminof, Giuseppe De Giacomo, Alessio Lomuscio, Aniello Murano, Sasha Rubin*

The Complexity Landscape of Resource-Constrained Scheduling *Robert Ganian, Thekla Hamm, Guillaume Mescoff*

Threshold Treewidth and Hypertree Width *Robert Ganian, Andre Schidler, Manuel Sorge, Stefan Szeider*

Tractable Fragments of Datalog with Metric Temporal Operators *Przemysław A. Wałęga, Bernardo Cuenca Grau, Mark Kaminski, Egor V. Kostylev*

Main track (Machine Learning)

A Bi-level Formulation for Label Noise Learning with Spectral Cluster Discovery *Yijing Luo, Bo Han, Chen Gong*

A Dual Input-aware Factorization Machine for CTR Prediction *Wantong Lu, Yantao Yu, Yongzhe Chang, Zhen Wang, Chenhui Li, Bo Yuan*

A Graphical and Attentional Framework for Dual-Target Cross-Domain Recommendation *Feng Zhu, Yan Wang, Chaochao Chen, Guanfeng Liu, Xiaolin Zheng*

A new attention mechanism to classify multivariate time series *Yifan Hao, Huiping Cao*

Accelerating Stratified Sampling SGD by Reconstructing Strata *Weijie Liu, Hui Qian, Chao Zhang, Zebang Shen, Jiahao Xie, Nenggan Zheng*

AdaBERT: Task-Adaptive BERT Compression with Differentiable Neural Architecture Search *Daoyuan Chen, Yaliang Li, Minghui Qiu, Zhen Wang, Bofang Li, Bolin Ding, Hongbo Deng, Jun Huang, Wei Lin, Jingren Zhou*

Adaptively Multi-Objective Adversarial Training for Dialogue Generation *Xuemiao Zhang, Zhouxing Tan, Xiaoning Zhang, Yang Cao, Rui Yan*

An Online Learning Framework for Energy-Efficient Navigation of Electric Vehicles *Niklas Åkerblom, Yuxin Chen, Morteza Haghir Chehreghani*

Analysis of Q-learning with Adaptation and Momentum Restart for Gradient Descent *Bowen Weng, Huaqing Xiong, Yingbin Liang, Wei Zhang*

Arbitrary Talking Face Generation via Attentional Audio-Visual Coherence Learning *Hao Zhu, Huaibo Huang, Yi Li, Aihua Zheng, Ran He*

Argot: Generating Adversarial Readable Chinese Texts *Zihan Zhang, Mingxuan Liu, Chao Zhang, Yiming Zhang, Zhou Li, Qi Li, Haixin Duan, Donghong Sun*

Asymmetric Distribution Measure for Few-shot Learning *Wenbin Li, Lei Wang, Jing Huo, Yinghuan Shi, Yang Gao, Jiebo Luo*

BaKer-Nets: Bayesian Random Kernel Mapping Networks *Hui Xue, Zheng-Fan Wu*

Balancing Individual Preferences and Shared Objectives in Multiagent Reinforcement Learning *Ishan Durugkar, Elad Liebman, Peter Stone*

Batch Decorrelation for Active Metric Learning *Priyadarshini Kumari, Ritesh Goru, Siddhartha Chaudhuri, Subhasis Chaudhuri*

Bayesian Decision Process for Budget-efficient Crowdsourced Clustering Xiaozhou Wang, Xi Chen, Qihang Lin, Weidong Liu

Bayesian Optimization using Pseudo-Points Chao Qian, Hang Xiong, Ke Xue

BERT-INT: A BERT-based Interaction Model For Knowledge Graph Alignment Xiaobin Tang, Jing Zhang, Bo Chen, Yang Yang, Hong Chen, Cuiping Li

Best Arm Identification in Spectral Bandits Tomáš Kocák, Aurélien Garivier

Beyond Network Pruning: a Joint Search-and-Training Approach Xiaotong Lu, Han Huang, Weisheng Dong, Xin Li, Guangming Shi

BRPO: Batch Residual Policy Optimization Sungryull Sohn, Yinlam Chow, Jayden Ooi, Ofir Nachum, Honglak Lee, Ed Chi, Craig Boutilier

Can Cross Entropy Loss Be Robust to Label Noise? Lei Feng, Senlin Shu, Zhuoyi Lin, Fengmao Lv, Li Li, Bo An

CDIMC-net: Cognitive Deep Incomplete Multi-view Clustering Network Jie Wen, Zheng Zhang, Yong Xu, Bob Zhang, Lunke Fei, Guo-Sen Xie

Clarinet: A One-step Approach Towards Budget-friendly Unsupervised Domain Adaptation Yiyang Zhang, Feng Liu, Zhen Fang, Bo Yuan, Guangquan Zhang, Jie Lu

Class Prior Estimation in Active Positive and Unlabeled Learning Lorenzo Perini, Vincent Vercruyssen, Jesse Davis

Classification with Rejection: Scaling Generative Classifiers with Supervised Deep Infomax Xin Wang, Siu Ming Yiu

Closing the Generalization Gap of Adaptive Gradient Methods in Training Deep Neural Networks Jinghui Chen, Dongruo Zhou, Yiqi Tang, Ziyang Yang, Yuan Cao, Quanquan Gu

Collaboration Based Multi-Label Propagation for Fraud Detection Haobo Wang, Zhao Li, Jiaming Huang, Pengrui Hui, Weiwei Liu, Tianlei Hu, Gang Chen

Collaborative Self-Attention Network for Session-based Recommendation Anjing Luo, Pengpeng Zhao, Yanchi Liu, Fuzhen Zhuang, Deqing Wang, Jiajie Xu, Junhua Fang, Victor S. Sheng

Coloring Graph Neural Networks for Node Disambiguation George Dasoulas, Ludovic Dos Santos, Kevin Scaman, Aladin Virmaux

Combinatorial Multi-Armed Bandits with Concave Rewards and Fairness Constraints Huanle Xu, Yang Liu, Wing Cheong Lau, Rui Li

Communicative Representation Learning on Attributed Molecular Graphs Ying Song, Shuangjia Zheng, Zhangming Niu, Zhang-hua Fu, Yutong Lu, Yuedong Yang

Complete Bottom-Up Predicate Invention in Meta-Interpretive Learning Céline Hocquette, Stephen H. Muggleton

Compressed Self-Attention for Deep Metric Learning with Low-Rank Approximation Ziye Chen, Mingming Gong, Lingjuan Ge, Bo Du

Consistent MetaReg: Alleviating Intra-task Discrepancy for Better Meta-knowledge Pinzhuo Tian, Lei Qi, Shaokang Dong, Yinghuan Shi, Yang Gao

Constrained Policy Improvement for Efficient Reinforcement Learning Elad Sarafian, Aviv Tamar, Sarit Kraus

Contextualized Point-of-Interest Recommendation Peng Han, Zhongxiao Li, Yong Liu, Peilin Zhao, Jing Li, Hao Wang, Shuo Shang

Convolutional Neural Networks with Compression Complexity Pooling for Out-of-Distribution Image Detection Sehun Yu, Dongha Lee, Hwanjo Yu

Crowdsourcing with Multiple-Source Knowledge Transfer Guangyang Han, Jinzheng Tu, Guoxian Yu, Jun Wang, Carlotta Domeniconi

DACE: Distribution-Aware Counterfactual Explanation by Mixed-Integer Linear Optimization Kentaro Kanamori, Takuya Takagi, Ken Kobayashi, Hiroki Arimura

Decorrelated Clustering with Data Selection Bias Xiao Wang, Shaohua Fan, Kun Kuang, Chuan Shi, Jiawei Liu, Bai Wang

Deep Feedback Network for Recommendation Ruobing Xie, Cheng Ling, Yalong Wang, Rui Wang, Feng Xia, Leyu Lin

Deep Latent Low-Rank Fusion Network for Progressive Subspace Discovery Zhao Zhang, Jiahuan Ren, Zheng Zhang, Guangcan Liu

DeepView: Visualizing Classification Boundaries of Deep Neural Networks as Scatter Plots Using Discriminative Dimensionality Reduction Alexander Schulz, Fabian Hinder, Barbara Hammer

Diffusion Variational Autoencoders Luis A. Perez Rey, Vlado Menkovski, Jim Portegies

Direct Quantization for Training Highly Accurate Low Bit-width Deep Neural Networks Tuan Hoang, Thanh-Toan Do, Tam V. Nguyen, Ngai-Man Cheung

Discovering Latent Class Labels for Multi-Label Learning Jun Huang, Linchuan Xu, Jing Wang, Lei Feng, Kenji Yamanishi

Discovering Subsequence Patterns for Next POI Recommendation Kangzhi Zhao, Yong Zhang, Hongzhi Yin, Jin Wang, Kai Zheng, Xiaofang Zhou, Chunxiao Xing

Discriminative Feature Selection via A Structured Sparse Subspace Learning Module Zheng Wang, Feiping Nie, Lai Tian, Rong Wang, Xuelong Li

Disentangling Direct and Indirect Interactions in Polytomous Item Response Theory Models Frank Nussbaum, Joachim Giesen

DropNAS: Grouped Operation Dropout for Differentiable Architecture Search Weijun Hong, Guilin Li, Weinan Zhang, Ruiming Tang, Yunhe Wang, Zhenguo Li, Yong Yu

Dual Policy Distillation Kwei-Herng Lai, Daochen Zha, Yuening Li, Xia Hu

Effective Search of Logical Forms for Weakly Supervised Knowledge-Based Question Answering Tao Shen, Xiubo Geng, Guodong Long, Jing Jiang, Chengqi Zhang, Daxin Jiang

Efficient Deep Reinforcement Learning via Adaptive Policy Transfer Tianpei Yang, Jianye Hao, Zhaopeng Meng, Zongzhang Zhang, Yujing Hu, Yingfeng Chen, Changjie Fan, Weixun Wang, Wulong Liu, Zhaodong Wang, Jiajie Peng

Embodied Multimodal Multitask Learning Devendra Singh Chaplot, Lisa Lee, Ruslan Salakhutdinov, Devi Parikh, Dhruv Batra

EndCold: An End-to-End Framework for Cold Question Routing in Community Question Answering Services Jiankai Sun, Jie Zhao, Huan Sun, Srinivasan Parthasarathy

Evaluating and Aggregating Feature-based Model Explanations *Umang Bhatt, Adrian Weller, José M. F. Moura*

Explainable Inference on Sequential Data via Memory-Tracking *Biagio La Rosa, Roberto Capobianco, Daniele Nardi*

Explainable Recommendation via Interpretable Feature Mapping and Evaluation of Explainability *Deng Pan, Xiangrui Li, Xin Li, Dongxiao Zhu*

Exploiting Neuron and Synapse Filter Dynamics in Spatial Temporal Learning of Deep Spiking Neural Network *Haowen Fang, Amar Shrestha, Ziyi Zhao, Qinru Qiu*

Exploring Parameter Space with Structured Noise for Meta-Reinforcement Learning *Hui Xu, Chong Zhang, Jiaxing Wang, Deqiang Ouyang, Yu Zheng, Jie Shao*

Fairness-Aware Neural Rényi Minimization for Continuous Features *Vincent Grari, Sylvain Lamprier, Marcin Detyniecki*

Feature Statistics Guided Efficient Filter Pruning *Hang Li, Chen Ma, Wei Xu, Xue Liu*

Flow-based Intrinsic Curiosity Module *Hsuan-Kung Yang, Po-Han Chiang, Min-Fong Hong, Chun-Yi Lee*

FNNC: Achieving Fairness through Neural Networks *Manisha Padala, Sujit Gujar*

Fully Nested Neural Network for Adaptive Compression and Quantization *Yufei Cui, Ziquan Liu, Wuguannan Yao, Qiao Li, Antoni B. Chan, Tei-wei Kuo, Chun Jason Xue*

General Purpose MRF Learning with Neural Network Potentials *Hao Xiong, Nicholas Ruoizzi*

Generalized Mean Estimation in Monte-Carlo Tree Search *Tuan Dam, Pascal Klink, Carlo D'Eramo, Jan Peters, Joni Pajarinen*

Generating Robust Audio Adversarial Examples with Temporal Dependency *Hongting Zhang, Pan Zhou, Qiben Yan, Xiao-Yang Liu*

Gradient Perturbation is Underrated for Differentially Private Convex Optimization *Da Yu, Huishuai Zhang, Wei Chen, Jian Yin, Tie-Yan Liu*

Greedy Convex Ensemble *Thanh Tan Nguyen, Nan Ye, Peter Bartlett*

Handling Black Swan Events in Deep Learning with Diversely Extrapolated Neural Networks *Maxime Wabartha, Audrey Durand, Vincent François-Lavet, Joelle Pineau*

Human-Driven FOL Explanations of Deep Learning *Gabriele Ciravegna, Francesco Giannini, Marco Gori, Marco Maggini, Stefano Melacci*

Hybrid Learning for Multi-agent Cooperation with Sub-optimal Demonstrations *Peixi Peng, Junliang Xing, Lili Cao*

Hypothesis Sketching for Online Kernel Selection in Continuous Kernel Space *Xiao Zhang, Shizhong Liao*

I²HRL: Interactive Influence-based Hierarchical Reinforcement Learning *Rundong Wang, Runsheng Yu, Bo An, Zinovi Rabinovich*

I4R: Promoting Deep Reinforcement Learning by the Indicator for Expressive Representations *Xufang Luo, Qi Meng, Di He, Wei Chen, Yunhong Wang*

Independent Skill Transfer for Deep Reinforcement Learning *Qiangxing Tian, Guanchu Wang, Jinxin Liu, Donglin Wang, Yachen Kang*

Inference-Masked Loss for Deep Structured Output Learning *Quan Guo, Hossein Rajaby Faghihi, Yue Zhang, Andrzej Uszok, Parisa Kordjamshidi*

Intent Preference Decoupling for User Representation on Online Recommender System *Zhaoyang Liu, Haokun Chen, Fei Sun, Xu Xie, Jinyang Gao, Bolin Ding, Yanyan Shen*

Intention2Basket: A Neural Intention-driven Approach for Dynamic Next-basket Planning *Shoujin Wang, Liang Hu, Yan Wang, Quan Z. Sheng, Mehmet Orgun, Longbing Cao*

Internal and Contextual Attention Network for Cold-start Multi-channel Matching in Recommendation *Ruobing Xie, Zhijie Qiu, Jun Rao, Yi Liu, Bo Zhang, Leyu Lin*

Interpretable Models for Understanding Immersive Simulations *Nicholas Hoernle, Kobi Gal, Barbara Grosz, Leilah Lyons, Ada Ren, Andee Rubin*

IR-VIC: Unsupervised Discovery of Sub-goals for Transfer in RL *Nirbhay Modhe, Prithvijit Chattopadhyay, Mohit Sharma, Abhishek Das, Devi Parikh, Dhruv Batra, Ramakrishna Vedantam*

Is the Skip Connection Provable to Reform the Neural Network Loss Landscape? *Lifu Wang, Bo Shen, Ning Zhao, Zhiyuan Zhang*

Joint Multi-view 2D Convolutional Neural Networks for 3D Object Classification *Jinglin Xu, Xiangsen Zhang, Wenbin Li, Xinwang Liu, Junwei Han*

Joint Partial Optimal Transport for Open Set Domain Adaptation *Renjun Xu, Pelen Liu, Yin Zhang, Fang Cai, Jindong Wang, Shuoying Liang, Heting Ying, Jianwei Yin*

KGNN: Knowledge Graph Neural Network for Drug-Drug Interaction Prediction *Xuan Lin, Zhe Quan, Zhi-Jie Wang, Tengfei Ma, Xiangxiang Zeng*

Knowledge Hypergraphs: Prediction Beyond Binary Relations *Bahare Fatemi, Perouz Taslakian, David Vazquez, David Poole*

Knowledge-Based Regularization in Generative Modeling *Naoya Takeishi, Yoshinobu Kawahara*

KoGuN: Accelerating Deep Reinforcement Learning via Integrating Human Suboptimal Knowledge *Peng Zhang, Jianye Hao, Weixun Wang, Hongyao Tang, Yi Ma, Yihai Duan, Yan Zheng*

Label Distribution for Learning with Noisy Labels *Yun-Peng Liu, Ning Xu, Yu Zhang, Xin Geng*

Label Enhancement for Label Distribution Learning via Prior Knowledge *Yongbiao Gao, Yu Zhang, Xin Geng*

Learning and Solving Regular Decision Processes *Eden Abadi, Ronen I. Brafman*

Learning from Few Positives: a Provably Accurate Metric Learning Algorithm to Deal with Imbalanced Data *Rémi Viola, Rémi Emonet, Amaury Habrard, Guillaume Metzler, Marc Sebban*

Learning From Multi-Dimensional Partial Labels *Haobo Wang, Weiwei Liu, Yang Zhao, Tianlei Hu, Ke Chen, Gang Chen*

Learning in the Wild with Incremental Skeptical Gaussian Processes *Andrea Bontempelli, Stefano Teso, Fausto Giunchiglia, Andrea Passerini*

Learning Interpretable Models in the Property Specification Language *Rajarshi Roy, Dana Fisman, Daniel Neider*

Learning Interpretable Representations with Informative Entanglements *Ege Beyazit, Doruk Tuncel, Xu Yuan, Nian-Feng Tzeng, Xindong Wu*

Learning Large Logic Programs By Going Beyond Entailment *Andrew Cropper, Sebastijan Dumančič*

Learning Neural-Symbolic Descriptive Planning Models via Cube-Space Priors: The Voyage Home (to STRIPS) *Masataro Asai, Christian Muise*

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Learning With Subquadratic Regularization : A Primal-Dual Approach *Raman Sankaran, Francis Bach, Chiranjib Bhattacharyya*

Location Prediction over Sparse User Mobility Traces Using RNNs: Flashback in Hidden States! *Dingqi Yang, Benjamin Fankhauser, Paolo Rosso, Philippe Cudre-Mauroux*

Logic Constrained Pointer Networks for Interpretable Textual Similarity *Subhadeep Maji, Rohan Kumar, Manish Bansal, Kalyani Roy, Pawan Goyal*

LSGCN: Long Short-Term Traffic Prediction with Graph Convolutional Networks *Rongzhou Huang, Chuyin Huang, Yubao Liu, Genan Dai, Weiyang Kong*

MaCAR: Urban Traffic Light Control via Active Multi-agent Communication and Action Rectification *Zhengxu Yu, Shuxian Liang, Long Wei, Zhongming Jin, Jianqiang Huang, Deng Cai, Xiaofei He, Xian-Sheng Hua*

Marthe: Scheduling the Learning Rate Via Online Hypergradients *Michele Donini, Luca Franceschi, Orchid Majumder, Massimiliano Pontil, Paolo Frasconi*

Measuring the Discrepancy between Conditional Distributions: Methods, Properties and Applications *Shujian Yu, Ammar Shaker, Francesco Alesiani, Jose Principe*

Memory Augmented Neural Model for Incremental Session-based Recommendation *Fei Mi, Boi Faltings*

MergeNAS: Merge Operations into One for Differentiable Architecture Search *Xiaoxing Wang, Chao Xue, Junchi Yan, Xiaokang Yang, Yonggang Hu, Kewei Sun*

Metric Learning in Optimal Transport for Domain Adaptation *Tanguy Kerdoncuff, Rémi Emonet, Marc Sebban*

Mixed-Variable Bayesian Optimization *Erik Daxberger, Anastasia Makarova, Matteo Turchetta, Andreas Krause*

Multi-Class Imbalanced Graph Convolutional Network Learning *Min Shi, Yufei Tang, Xingquan Zhu, David Wilson, Jianxun Liu*

Multi-Feedback Bandit Learning with Probabilistic Contexts *Luting Yang, Jianyi Yang, Shaolei Ren*

Multi-label Feature Selection via Global Relevance and Redundancy Optimization *Jia Zhang, Yidong Lin, Min Jiang, Shaozi Li, Yong Tang, Kay Chen Tan*

Multi-Scale Group Transformer for Long Sequence Modeling in Speech Separation *Yucheng Zhao, Chong Luo, Zheng-Jun Zha, Wenjun Zeng*

Multi-View Attribute Graph Convolution Networks for Clustering *Jiafeng Cheng, Qianqian Wang, Zhiqiang Tao, Deyan Xie, Quanxue Gao*

MULTIPOLAR: Multi-Source Policy Aggregation for Transfer Reinforcement Learning between Diverse Environmental Dynamics *Mohammadamin Barekatain, Ryo Yonetani, Masashi Hamaya*

Multivariate Probability Calibration with Isotonic Bernstein Polynomials *Yongqiao Wang, Xudong Liu*

Mutual Information Estimation using LSH Sampling *Ryan Spring, Anshumali Shrivastava*

Nearly Optimal Regret for Stochastic Linear Bandits with Heavy-Tailed Payoffs *Bo Xue, Guanghui Wang, Yimu Wang, Lijun Zhang*

Neighbor Combinatorial Attention for Critical Structure Mining *Tanli Zuo, Yukun Qiu, Wei-Shi Zheng*

Neural Representation and Learning of Hierarchical 2-additive Choquet Integrals *Roman Bresson, Johanne Cohen, Eyke Hüllermeier, Christophe Labreuche, Michèle Sebag*

Neural Tensor Model for Learning Multi-Aspect Factors in Recommender Systems *Huiyuan Chen, Jing Li*

Non-monotone DR-submodular Maximization over General Convex Sets *Christoph Dürr, Nguyen Kim Thang, Abhinav Srivastav, Léo Tible*

On Deep Unsupervised Active Learning *Changsheng Li, Handong Ma, Zhao Kang, Ye Yuan, Xiao-Yu Zhang, Guoren Wang*

On Metric DBSCAN with Low Doubling Dimension *Hu Ding, Fan Yang, Mingyue Wang*

One-Shot Neural Architecture Search via Novelty Driven Sampling *Miao Zhang, Huiqi Li, Shirui Pan, Taoping Liu, Steven Su*

Online Positive and Unlabeled Learning *Chuang Zhang, Chen Gong, Tengfei Liu, Xun Lu, Weiqiang Wang, Jian Yang*

Only Relevant Information Matters: Filtering Out Noisy Samples To Boost RL *Yannis Flet-Berliac, Philippe Preux*

Optimal Margin Distribution Machine for Multi-Instance Learning *Teng Zhang, Hai Jin*

Optimality, Accuracy, and Efficiency of an Exact Functional Test *Hien H. Nguyen, Hua Zhong, Mingzhou Song*

Order-Dependent Event Models for Agent Interactions *Debarun Bhattacharjya, Tian Gao, Dharmashankar Subramanian*

P-KDGAN: Progressive Knowledge Distillation with GANs for One-class Novelty Detection *Zhiwei Zhang, Shifeng Chen, Lei Sun*

Partial Multi-Label Learning via Multi-Subspace Representation *Ziwei Li, Gengyu Lyu, Songhe Feng*

pbSGD: Powered Stochastic Gradient Descent Methods for Accelerated Non-Convex Optimization *Beitong Zhou, Jun Liu, Weigao Sun, Ruijuan Chen, Claire Tomlin, Ye Yuan*

Positive Unlabeled Learning with Class-prior Approximation *Shizhen Chang, Bo Du, Liangpei Zhang*

Potential Driven Reinforcement Learning for Hard Exploration Tasks *Enmin Zhao, Shihong Deng, Yifan Zang, Yongxin Kang, Kai Li, Junliang Xing*

Privileged label enhancement with multi-label learning *Wenfang Zhu, Xiuyi Jia, Weiwei Li*

Quadratic Sparse Gaussian Graphical Model Estimation Method for Massive Variables *Jiaqi Zhang, Meng Wang, Qinchu Li, Sen Wang, Xiaojun Chang, Beilun Wang*

Randomised Gaussian Process Upper Confidence Bound for Bayesian Optimisation *Julian Berk, Sunil Gupta, Santu Rana, Svetha Venkatesh*

RDF-to-Text Generation with Graph-augmented Structural Neural Encoders *Hanning Gao, Lingfei Wu, Po Hu, Fangli Xu*

Recurrent Dirichlet Belief Networks for interpretable Dynamic Relational Data Modelling *Yaqiong Li, Xuhui Fan, Ling Chen, Bin Li, Zheng Yu, Scott A. Sisson*

Reducing Underflow in Mixed Precision Training by Gradient Scaling *Ruizhe Zhao, Brian Vogel, Tanvir Ahmed, Wayne Luk*

Reinforcement Learning Framework for Deep Brain Stimulation Study *Dmitrii Krylov, Remi Tachet des Combes, Romain Laroche, Michael Rosenblum, Dmitry V. Dylov*

Reinforcement Learning with Dynamic Boltzmann Softmax Updates *Ling Pan, Qingpeng Cai, Qi Meng, Wei Chen, Longbo Huang*

Reward Prediction Error as an Exploration Objective in Deep RL *Riley Simmons-Edler, Ben Eisner, Daniel Yang, Anthony Bisulco, Eric Mitchell, Sebastian Seung, Daniel Lee*

Scalable Gaussian Process Regression Networks *Shibo Li, Wei Xing, Robert M. Kirby, Shandian Zhe*

Self-adaptive Re-weighted Adversarial Domain Adaptation *Shanshan Wang, Lei Zhang*

Self-Attentional Credit Assignment for Transfer in Reinforcement Learning *Johan Ferret, Raphael Marinier, Matthieu Geist, Olivier Pietquin*

Self-paced Consensus Clustering with Bipartite Graph *Peng Zhou, Liang Du, Xuejun Li*

Semi-supervised Clustering via Pairwise Constrained Optimal Graph *Feiping Nie, Han Zhang, Rong Wang, Xuelong Li*

Seq-U-Net: A One-Dimensional Causal U-Net for Efficient Sequence Modelling *Daniel Stoller, Mi Tian, Sebastian Ewert, Simon Dixon*

SI-VDNAS: Semi-Implicit Variational Dropout for Hierarchical One-shot Neural Architecture Search *Yaoming Wang, Wenrui Dai, Chenglin Li, Junni Zou, Hongkai Xiong*

Sinkhorn Regression *Lei Luo, Jian Pei, Heng Huang*

Smart Contract Vulnerability Detection using Graph Neural Network *Yuan Zhuang, Zhenguang Liu, Peng Qian, Qi Liu, Xiang Wang, Qinming He*

Soft Threshold Ternary Networks *Weixiang Xu, Xiangyu He, Tianli Zhao, Qinghao Hu, Peisong Wang, Jian Cheng*

Solving Hard AI Planning Instances Using Curriculum-Driven Deep Reinforcement Learning *Dieqiao Feng, Carla Gomes, Bart Selman*

Spectral Pruning: Compressing Deep Neural Networks via Spectral Analysis and its Generalization Error *Taiji Suzuki, Hiroshi Abe, Tomoya Murata, Shingo Horiuchi, Kotaro Ito, Tokuma Wachi, So Hirai, Masatoshi Yukishima, Tomoaki Nishimura*

Split to Be Slim: An Overlooked Redundancy in Vanilla Convolution *Qiulin Zhang, Zhuqing Jiang, Qishuo Lu, Jia'nan Han, Zhengxin Zeng, Shanghua Gao, Aidong Men*

Stabilizing Adversarial Invariance Induction from Divergence Minimization Perspective Yusuke

Iwasawa, Kei Akuzawa, Yutaka Matsuo

Stochastic Batch Augmentation with An Effective Distilled Dynamic Soft Label Regularizer Qian Li,

Qingyuan Hu, Yong Qi, Saiyu Qi, Jie Ma, Jian Zhang

SVRG for Policy Evaluation with Fewer Gradient Evaluations Zilun Peng, Ahmed Touati, Pascal Vincent,

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Switching Poisson Gamma Dynamical Systems Wenchao Chen, Bo Chen, Yicheng Liu, Qianru Zhao,

Mingyuan Zhou

Synthesizing Aspect-Driven Recommendation Explanations from Reviews Trung-Hoang Le, Hady W.

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Temporal Attribute Prediction via Joint Modeling of Multi-Relational Structure Evolution Sankalp

Garg, Navodita Sharma, Woojeong Jin, Xiang Ren

Tensor-based multi-view label enhancement for multi-label learning Fangwen Zhang, Xiuyi Jia, Weiwei

Li

Textual Membership Queries Jonathan Zarecki, Shaul Markovitch

The Importance of the Test Set Size in Quantification Assessment André Maletzke, Waqar Hassan, Denis

dos Reis, Gustavo Batista

The Sparse MinMax k-Means Algorithm for High-Dimensional Clustering Sayak Dey, Swagatam Das,

Rammohan Mallipeddi

Tight Convergence Rate of Gradient Descent for Eigenvalue Computation Qinghua Ding, Kaiwen Zhou,

James Cheng

Toward a neuro-inspired creative decoder Payel Das, Brian Quanz, Pin-Yu Chen, Jae-wook Ahn, Dhruv Shah

Towards a Hierarchical Bayesian Model of Multi-View Anomaly Detection Zhen Wang, Chao Lan

Towards Accurate and Robust Domain Adaptation under Noisy Environments Zhongyi Han, Xian-Jin

Gui, Chaoran Cui, Yilong Yin

Towards Explainable Conversational Recommendation Zhongxia Chen, Xiting Wang, Xing Xie, Mehul

Parsana, Akshay Soni, Xiang Ao, Enhong Chen

Trajectory Similarity Learning with Auxiliary Supervision and Optimal Matching Hanyuan Zhang,

Xinyu Zhang, Qize Jiang, Baihua Zheng, Zhenbang Sun, Weiwei Sun, Changhu Wang

TransRHS: A Representation Learning Method for Knowledge Graphs with Relation Hierarchical

Structure Fuxiang Zhang, Xin Wang, Zhao Li, Jianxin Li

Triple-GAIL: A Multi-Modal Imitation Learning Framework with Generative Adversarial Nets Cong

Fei, Bin Wang, Yuzheng Zhuang, Zongzhang Zhang, Jianye Hao, Hongbo Zhang, Xuewu Ji, Wulong Liu

Understanding the Power and Limitations of Teaching with Imperfect Knowledge Rati Devidze,

Farnam Mansouri, Luis Haug, Yuxin Chen, Adish Singla

Unsupervised Domain Adaptation with Dual-Scheme Fusion Network for Medical Image

Segmentation Danbing Zou, Qikui Zhu, Pingkun Yan

Unsupervised Monocular Visual-inertial Odometry Network Peng Wei, Guoliang Hua, Weibo Huang,

Fanyang Meng, Hong Liu

Unsupervised Representation Learning by Predicting Random Distances *Hu Wang, Guansong Pang, Chunhua Shen, Congbo Ma*

User Modeling with Click Preference and Reading Satisfaction for News Recommendation *Chuhan Wu, Fangzhao Wu, Tao Qi, Yongfeng Huang*

Variational Learning of Bayesian Neural Networks via Bayesian Dark Knowledge *Gehui Shen, Xi Chen, Zhihong Deng*

Weakly-Supervised Multi-view Multi-instance Multi-label Learning *Yuying Xing, Guoxian Yu, Jun Wang, Carlotta Domeniconi, Xiangliang Zhang*

Main track (Machine Learning Applications)

A Label Attention Model for ICD Coding from Clinical Text *Thanh Vu, Dat Quoc Nguyen, Anthony Nguyen*

Adversarial Mutual Information Learning for Network Embedding *Dongxiao He, Lu Zhai, Zhigang Li, Di Jin, Liang Yang, Yuxiao Huang, Philip S. Yu*

Binary Classification from Positive Data with Skewed Confidence *Kazuhiko Shinoda, Hirotaka Kaji, Masashi Sugiyama*

C3MM: Clique-Closure based Hyperlink Prediction *Govind Sharma, Prasanna Patil, M. Narasimha Murty*

CDC: Classification Driven Compression for Bandwidth Efficient Edge-Cloud Collaborative Deep Learning *Yuanrui Dong, Peng Zhao, Hanqiao Yu, Cong Zhao, Shusen Yang*

DeepWeave: Accelerating Job Completion Time with Deep Reinforcement Learning-based Coflow Scheduling *Penghao Sun, Zehua Guo, Junchao Wang, Junfei Li, Julong Lan, Yuxiang Hu*

Generating Behavior-Diverse Game AIs with Evolutionary Multi-Objective Deep Reinforcement Learning *Ruimin Shen, Yan Zheng, Jianye Hao, Zhaopeng Meng, Yingfeng Chen, Changjie Fan, Yang Liu*

HID: Hierarchical Multiscale Representation Learning for Information Diffusion *Honglu Zhou, Shuyuan Xu, Zuohui Fu, Gerard de Melo, Yongfeng Zhang, Mubbasir Kapadia*

Inferring Degrees from Incomplete Networks and Nonlinear Dynamics *Chunheng Jiang, Jianxi Gao, Malik Magdon-Ismail*

Inverse Reinforcement Learning for Team Sports: Valuing Actions and Players *Yudong Luo, Oliver Schulte, Pascal Poupart*

Predicting Landslides Using Locally Aligned Convolutional Neural Networks *Ainaz Hajimoradlou, Gioachino Roberti, David Poole*

Semi-Markov Reinforcement Learning for Stochastic Resource Collection *Sebastian Schmoll, Matthias Schubert*

Main track (Multidisciplinary Topics and Applications)

A Game Theoretic Approach For Core Resilience *Sourav Medya, Tiyan Ma, Arlei Silva, Ambuj Singh*

A Two-Stage Matheuristic Algorithm for Classical Inventory Routing Problem *Zhouxing Su, Shihao Huang, Chungun Li, Zhipeng Lü*

An Attention-based Model for Conversion Rate Prediction with Delayed Feedback via Post-click Calibration *Yumin Su, Liang Zhang, Quanyu Dai, Bo Zhang, Jinyao Yan, Dan Wang, Yongjun Bao, Sulong Xu, Yang He, Weipeng Yan*

An Interactive Multi-Task Learning Framework for Next POI Recommendation with Uncertain

Check-ins *Lu Zhang, Zhu Sun, Jie Zhang, Yu Lei, Chen Li, Ziqing Wu, Horst Kloeden, Felix Klanner*

Automatic Emergency Diagnosis with Knowledge-Based Tree Decoding

Ke Wang, Xuyan Chen, Ning Chen, Ting Chen

Auxiliary Template-Enhanced Generative Compatibility Modeling

Jinhuan Liu, Xueming Song, Zhaochun Ren, Liqiang Nie, Zhaopeng Tu, Jun Ma

BERT-PLI: Modeling Paragraph-Level Interactions for Legal Case Retrieval

Yunqiu Shao, Jiaxin Mao, Yiqun Liu, Weizhi Ma, Ken Satoh, Min Zhang, Shaoping Ma

Community-Centric Graph Convolutional Network for Unsupervised Community Detection

Dongxiao He, Yue Song, Di Jin, Zhiyong Feng, Binbin Zhang, Zhizhi Yu, Weixiong Zhang

CooBa: Cross-project Bug Localization via Adversarial Transfer Learning

Ziye Zhu, Yun Li, Hanghang Tong, Yu Wang

Differential Privacy for Stackelberg Games

Ferdinando Fioretto, Lesia Mitridati, Pascal Van Hentenryck

Efficient Community Search over Large Directed Graph: An Augmented Index-based Approach

Yankai Chen, Jie Zhang, Yixiang Fang, Xin Cao, Irwin King

Exploiting Mutual Information for Substructure-aware Graph Representation Learning

Pengyang Wang, Yanjie Fu, Yuanchun Zhou, Kunpeng Liu, Xiaolin Li, Kien Hua

FakeSpotter: A Simple yet Robust Baseline for Spotting AI-Synthesized Fake Faces

Run Wang, Felix Juefei-Xu, Lei Ma, Xiaofei Xie, Yihao Huang, Jian Wang, Yang Liu

HyperNews: Simultaneous News Recommendation and Active-Time Prediction via a Double-Task

Deep Neural Network *Rui Liu, Huilin Peng, Yong Chen, Dell Zhang*

Learning Data-Driven Drug-Target-Disease Interaction via Neural Tensor Network

Huiyuan Chen, Jing Li

Learning Model with Error -- exposing the hidden model of BAYHENN

Harry W. H. Wong, Jack P. K. Ma, Donald P. H. Wong, Lucien K. L. Ng, Sherman S. M. Chow

Learning the Compositional Visual Coherence for Complementary Recommendations

Zhi Li, Bo Wu, Qi Liu, Likang Wu, Hongke Zhao, Tao Mei

Learning to Accelerate Heuristic Searching for Large-Scale Maximum Weighted b-Matching

Problems in Online Advertising *Xiaotian Hao, Junqi Jin, Jianye Hao, Jin Li, Weixun Wang, Yi Ma, Zhenzhe*

Zheng, Han Li, Jian Xu, Kun Gai

MLS3RDUH: Deep Unsupervised Hashing via Manifold based Local Semantic Similarity Structure

Reconstructing *Rong-Cheng Tu, Xian-Ling Mao, Wei Wei*

Modeling Perception Errors towards Robust Decision Making in Autonomous Vehicles

Andrea Piazzoni, Jim Cherian, Martin Slavik, Justin Dauwels

Optimal Policy for Deployment of Machine Learning Models on Energy-Bounded Systems

Seyed Iman Mirzadeh, Hassan Ghasemzadeh

Pivot-based Maximal Biclique Enumeration

Aman Abidi, Rui Zhou, Lu Chen, Chengfei Liu

The Graph-based Mutual Attentive Network for Automatic Diagnosis

Quan Yuan, Jun Chen, Chao Lu, Haifeng Huang

Towards Alleviating Traffic Congestion: Optimal Route Planning for Massive-Scale Trips *Ke Li, Lisi Chen, Shuo Shang*

Why We Go Where We Go: Profiling User Decisions on Choosing POIs *Renjun Hu, Xinjiang Lu, Chuanren Liu, Yanyan Li, Hao Liu, Jingjing Gu, Shuai Ma, Hui Xiong*

Main track (Natural Language Processing)

A De Novo Divide-and-Merge Paradigm for Acoustic Model Optimization in Automatic Speech Recognition *Conghui Tan, Di Jiang, Jinhua Peng, Xueyang Wu, Qian Xu, Qiang Yang*

A Relation-Specific Attention Network for Joint Entity and Relation Extraction *Yue Yuan, Xiaofei Zhou, Shirui Pan, Qiannan Zhu, Zeliang Song, Li Guo*

A Structured Latent Variable Recurrent Network with Stochastic Attention for Generating Weibo Comments *Shijie Yang, Liang Li, Shuhui Wang, Weigang Zhang, Qingming Huang, Qi Tian*

Alleviate Dataset Shift Problem in Fine-grained Entity Typing with Virtual Adversarial Training *Haochen Shi, Siliang Tang, Xiaotao Gu, Bo Chen, Zhigang Chen, Jian Shao, Xiang Ren*

An Iterative Multi-Source Mutual Knowledge Transfer Framework for Machine Reading Comprehension *Xin Liu, Kai Liu, Xiang Li, Jinsong Su, Yubin Ge, Bin Wang, Jiebo Luo*

Answer Generation through Unified Memories over Multiple Passages *Makoto Nakatsuji, Sohei Okui*

Asking Effective and Diverse Questions: A Machine Reading Comprehension based Framework for Joint Entity-Relation Extraction *Tianyang Zhao, Zhao Yan, Yunbo Cao, Zhoujun Li*

Attention as Relation: Learning Supervised Multi-head Self-Attention for Relation Extraction *Jie Liu, Shaowei Chen, Bingquan Wang, Jiaxin Zhang, Na Li, Tong Xu*

Attention-based Multi-level Feature Fusion for Named Entity Recognition *Zhiwei Yang, Hechang Chen, Jiawei Zhang, Jing Ma, Yi Chang*

Better AMR-To-Text Generation with Graph Structure Reconstruction *Tianming Wang, Xiaojun Wan, Shaowei Yao*

CoSDA-ML: Multi-Lingual Code-Switching Data Augmentation for Zero-Shot Cross-Lingual NLP *Libo Qin, Minheng Ni, Yue Zhang, Wanxiang Che*

Dataless Short Text Classification Based on Biterm Topic Model and Word Embeddings *Yi Yang, Hongan Wang, Jiaqi Zhu, Yunkun Wu, Kailong Jiang, Wenli Guo, Wandong Shi*

Dialogue State Induction Using Neural Latent Variable Models *Qingkai Min, Libo Qin, Zhiyang Teng, Xiao Liu, Yue Zhang*

Domain Adaptation for Semantic Parsing *Zechang Li, Yuxuan Lai, Yansong Feng, Dongyan Zhao*

Efficient Context-Aware Neural Machine Translation with Layer-Wise Weighting and Input-Aware Gating *Hongfei Xu, Deyi Xiong, Josef van Genabith, Qiuhui Liu*

EmoElicitor: An Open Domain Response Generation Model with User Emotional Reaction Awareness *Shifeng Li, Shi Feng, Daling Wang, Kaisong Song, Yifei Zhang, Weichao Wang*

End-to-End Transition-Based Online Dialogue Disentanglement *Hui Liu, Zhan Shi, Jia-Chen Gu, Quan Liu, Si Wei, Xiaodan Zhu*

Enhancing Dialog Coherence with Event Graph Grounded Content Planning Jun Xu, Zeyang Lei, Haifeng Wang, Zheng-Yu Niu, Hua Wu, Wanxiang Che

ERNIE-GEN: An Enhanced Multi-Flow Pre-training and Fine-tuning Framework for Natural Language Generation Dongling Xiao, Han Zhang, Yukun Li, Yu Sun, Hao Tian, Hua Wu, Haifeng Wang

Evaluating Natural Language Generation via Unbalanced Optimal Transport Yimeng Chen, Yanyan Lan, Ruibin Xiong, Liang Pang, Zhiming Ma, Xueqi Cheng

Exemplar Guided Neural Dialogue Generation Hengyi Cai, Hongshen Chen, Yonghao Song, Xiaofang Zhao, Dawei Yin

Exploring Bilingual Parallel Corpora for Syntactically Controllable Paraphrase Generation Mingtong Liu, Erguang Yang, Deyi Xiong, Yujie Zhang, Chen Sheng, Changjian Hu, Jinan Xu, Yufeng Chen

Fast and Accurate Neural CRF Constituency Parsing Yu Zhang, Houquan Zhou, Zhenghua Li

Formal Query Building with Query Structure Prediction for Complex Question Answering over Knowledge Base Yongrui Chen, Huiying Li, Yuncheng Hua, Guilin Qi

Gated POS-Level Language Model for Authorship Verification Linshu Ouyang, Yongzheng Zhang, Hui Liu, Yige Chen, Yipeng Wang

Gaussian Embedding of Linked Documents from a Pretrained Semantic Space Antoine Gourru, Julien Velcin, Julien Jacques

Generalized Zero-Shot Text Classification for ICD Coding Congzheng Song, Shanghang Zhang, Najmeh Sadoughi, Pengtao Xie, Eric Xing

Generating Reasonable Legal Text through the Combination of Language Modeling and Question Answering Weijing Huang, Xianfeng Liao, Zhiqiang Xie, Jiang Qian, Bojin Zhuang, Shaojun Wang, Jing Xiao

Global Structure and Local Semantics-Preserved Embeddings for Entity Alignment Hao Nie, Xianpei Han, Le Sun, Chi Man Wong, Qiang Chen, Suhui Wu, Wei Zhang

Guided Generation of Cause and Effect Zhongyang Li, Xiao Ding, Ting Liu, J. Edward Hu, Benjamin Van Durme

Hierarchical Linear Disentanglement of Data-Driven Conceptual Spaces Rana Alshaikh, Zied Bouraoui, Steven Schockaert

Hierarchical Matching Network for Heterogeneous Entity Resolution Cheng Fu, Xianpei Han, Jiaming He, Le Sun

Hierarchical Multi-task Learning for Organization Evaluation of Argumentative Student Essays Wei Song, Ziyao Song, Lizhen Liu, Ruiji Fu

How Far are We from Effective Context Modeling? An Exploratory Study on Semantic Parsing in Context Qian Liu, Bei Chen, Jiaqi Guo, Jian-Guang Lou, Bin Zhou, Dongmei Zhang

Hype-HAN: Hyperbolic Hierarchical Attention Network for Semantic Embedding Chengkun Zhang, Junbin Gao

Infobox-to-text Generation with Tree-like Planning based Attention Network Yang Bai, Ziran Li, Ning Ding, Ying Shen, Hai-Tao Zheng

Joint Time-Frequency and Time Domain Learning for Speech Enhancement Chuanxin Tang, Chong Luo, Zhiyuan Zhao, Wenxuan Xie, Wenjun Zeng

Knowledge Enhanced Event Causality Identification with Mention Masking Generalizations *Jian Liu, Yubo Chen, Jun Zhao*

Knowledge Graphs Enhanced Neural Machine Translation *Yang Zhao, Jiajun Zhang, Yu Zhou, Chengqing Zong*

Learning Latent Forests for Medical Relation Extraction *Zhijiang Guo, Guoshun Nan, Wei LU, Shay B. Cohen*

Learning with Noise: Improving Distantly-Supervised Fine-grained Entity Typing via Automatic Relabeling *Haoyu Zhang, Dingkun Long, Guangwei Xu, Muhua Zhu, Pengjun Xie, Fei Huang, Ji Wang*

Leveraging Document-Level Label Consistency for Named Entity Recognition *Tao Gui, Jiacheng Ye, Qi Zhang, Yaqian Zhou, Yeyun Gong, Xuanjing Huang*

Lexical-Constraint-Aware Neural Machine Translation via Data Augmentation *Guanhua Chen, Yun Chen, Yong Wang, Victor O.K. Li*

LogiQA: A Challenge Dataset for Machine Reading Comprehension with Logical Reasoning *Jian Liu, Leyang Cui, Hanmeng Liu, Dandan Huang, Yile Wang, Yue Zhang*

Modeling Dense Cross-Modal Interactions for Joint Entity-Relation Extraction *Shan Zhao, Minghao Hu, Zhiping Cai, Fang Liu*

Modeling Topical Relevance for Multi-Turn Dialogue Generation *Hainan Zhang, Yanyan Lan, Liang Pang, Hongshen Chen, Zhuoye Ding, Dawei Yin*

Modeling Voting for System Combination in Machine Translation *Xuancheng Huang, Jiacheng Zhang, Zhixing Tan, Derek F. Wong, Huanbo Luan, Jingfang Xu, Maosong Sun, Yang Liu*

MuLaN: Multilingual Label propagationN for Word Sense Disambiguation *Edoardo Barba, Luigi Procopio, Niccolò Campolungo, Tommaso Pasini, Roberto Navigli*

Multi-hop Reading Comprehension across Documents with Path-based Graph Convolutional Network *Zeyun Tang, Yongliang Shen, Xinyin Ma, Wei Xu, Jiale Yu, Weiming Lu*

Neural Abstractive Summarization with Structural Attention *Tanya Chowdhury, Sachin Kumar, Tanmoy Chakraborty*

Neural Machine Translation with Error Correction *Kaitao Song, Xu Tan, Jianfeng Lu*

On the Importance of Word and Sentence Representation Learning in Implicit Discourse Relation Classification *Xin Liu, Jiefu Ou, Yangqiu Song, Xin Jiang*

RECPARSER: A Recursive Semantic Parsing Framework for Text-to-SQL Task *Yu Zeng, Yan Gao, Jiaqi Guo, Bei Chen, Qian Liu, Jian-Guang Lou, Fei Teng, Dongmei Zhang*

Retrieve, Program, Repeat: Complex Knowledge Base Question Answering via Alternate Meta-learning *Yuncheng Hua, Yuan-Fang Li, Gholamreza Haffari, Guilin Qi, Wei Wu*

Robust Front-End for Multi-Channel ASR using Flow-Based Density Estimation *Hyeongju Kim, Hyeonseung Lee, Woo Hyun Kang, Hyung Yong Kim, Nam Soo Kim*

Task-Level Curriculum Learning for Non-Autoregressive Neural Machine Translation *Jinglin Liu, Yi Ren, Xu Tan, Chen Zhang, Tao Qin, Zhou Zhao, Tie-Yan Liu*

Teacher-Student Networks with Multiple Decoders for Solving Math Word Problem *Jipeng Zhang, Roy Ka-Wei Lee, Ee-Peng Lim, Wei Qin, Lei Wang, Jie Shao, Qianru Sun*

Text Style Transfer via Learning Style Instance Supported Latent Space Xiaoyuan Yi, Zhenghao Liu, Wenhao Li, Maosong Sun

TopicKA: Generating Commonsense Knowledge-Aware Dialogue Responses Towards the Recommended Topic Fact Sixing Wu, Ying Li, Dawei Zhang, Yang Zhou, Zhonghai Wu

Towards Fully 8-bit Integer Inference for the Transformer Model Ye Lin, Yanyang Li, Tengbo Liu, Tong Xiao, Tongran Liu, Jingbo Zhu

Towards Making the Most of Context in Neural Machine Translation Zaixiang Zheng, Xiang Yue, Shujian Huang, Jiajun Chen, Alexandra Birch

Transformers as Soft Reasoners over Language Peter Clark, Oyvind Tafjord, Kyle Richardson

TransOMCS: From Linguistic Graphs to Commonsense Knowledge Hongming Zhang, Daniel Khashabi, Yangqiu Song, Dan Roth

Triple-to-Text Generation with an Anchor-to-Prototype Framework Ziran Li, Zibo Lin, Ning Ding, Hai-Tao Zheng, Ying Shen

Two-Phase Hypergraph Based Reasoning with Dynamic Relations for Multi-Hop KBQA Jiale Han, Bo Cheng, Xu Wang

UniTrans : Unifying Model Transfer and Data Transfer for Cross-Lingual Named Entity Recognition with Unlabeled Data Qianhui Wu, Zijia Lin, Börje F. Karlsson, Biqing Huang, Jian-Guang Lou

Unsupervised Domain Adaptation of a Pretrained Cross-Lingual Language Model Juntao Li, Ruidan He, Hai Ye, Hwee Tou Ng, Lidong Bing, Rui Yan

Unsupervised Multilingual Alignment using Wasserstein Barycenter Xin Lian, Kshitij Jain, Jakub Trzuskowski, Pascal Poupart, Yaoliang Yu

Main track (Planning and Scheduling)

A Unified Model for the Two-stage Offline-then-Online Resource Allocation Yifan Xu, Pan Xu, Jianping Pan, Jun Tao

Boundary Extension Features for Width-Based Planning with Simulators on Continuous-State Domains Florent Teichteil-Königsbuch, Miquel Ramirez, Nir Lipovetzky

Cost-Partitioned Merge-and-Shrink Heuristics for Optimal Classical Planning Silvan Sievers, Florian Pommerening, Thomas Keller, Malte Helmert

Decidability Results in First-Order Epistemic Planning Andrés Occhipinti Liberman, Rasmus Kræmmer Rendsvig

Delete- and Ordering-Relaxation Heuristics for HTN Planning Daniel Höller, Pascal Bercher, Gregor Behnke

DualSMC: Tunneling Differentiable Filtering and Planning under Continuous POMDPs Yunbo Wang, Bo Liu, Jiajun Wu, Yuke Zhu, Simon S. Du, Li Fei-Fei, Joshua B. Tenenbaum

Front-to-Front Heuristic Search for Satisficing Classical Planning Ryo Kuroiwa, Alex Fukunaga

Iterative-Deepening Conflict-Based Search Eli Boyarski, Ariel Felner, Daniel Harabor, Peter J. Stuckey, Liron Cohen, Jiaoyang Li, Sven Koenig

Multi-Directional Heuristic Search *Dor Atzmon, Jiaoyang Li, Ariel Felner, Eliran Nachmani, Shahaf S. Shperberg, Nathan R. Sturtevant, Sven Koenig*

Multi-Robot Adversarial Patrolling Strategies via Lattice Paths *Jan Buermann, Jie Zhang*

Online Revenue Maximization for Server Pricing *Shant Boodaghians, Federico Fusco, Stefano Leonardi, Yishay Mansour, Ruta Mehta*

Optimal Planning Modulo Theories *Francesco Leofante, Enrico Giunchiglia, Erika Ábráham, Armando Tacchella*

Optimising Partial-Order Plans Via Action Reinstantiation *Max Waters, Lin Padgham, Sebastian Sardina*

Plan-Space Explanation via Plan-Property Dependencies: Faster Algorithms & More Powerful Properties *Rebecca Eifler, Marcel Steinmetz, Álvaro Torralba, Joerg Hoffmann*

Robust Policy Synthesis for Uncertain POMDPs via Convex Optimization *Marnix Suilen, Nils Jansen, Murat Cubuktepe, Ufuk Topcu*

Robustness Computation of Dynamic Controllability in Probabilistic Temporal Networks with Ordinary Distributions *Michael Saint-Guillain, Tiago Stegun Vaquero, Jagriti Agrawal, Steve Chien*

Sparse Tree Search Optimality Guarantees in POMDPs with Continuous Observation Spaces *Michael H. Lim, Claire Tomlin, Zachary N. Sunberg*

Steady-State Policy Synthesis in Multichain Markov Decision Processes *George Atia, Andre Beckus, Ismail Alkhouri, Alvaro Velasquez*

Trade the System Efficiency for the Income Equality of Drivers in Rideshare *Yifan Xu, Pan Xu*

Trading Plan Cost for Timeliness in Situated Temporal Planning *Shahaf S. Shperberg, Andrew Coles, Erez Karpas, Eyal Shimony, Wheeler Ruml*

Verifiable RNN-Based Policies for POMDPs Under Temporal Logic Constraints *Steven Carr, Nils Jansen, Ufuk Topcu*

Main track (Robotics)

Crowd-Steer: Realtime Smooth and Collision-Free Robot Navigation in Densely Crowded Scenarios Trained using High-Fidelity Simulation *Jing Liang, Utsav Patel, Adarsh Jagan Sathyamoorthy, Dinesh Manocha*

Euclidean Pathfinding with Compressed Path Databases *Bojie Shen, Muhammad Aamir Cheema, Daniel Harabor, Peter J. Stuckey*

Main track (Uncertainty in AI)

A Complete Characterization of Projectivity for Statistical Relational Models *Manfred Jaeger, Oliver Schulte*

Approximate Weighted First-Order Model Counting: Exploiting Fast Approximate Model Counters and Symmetry *Timothy van Bremen, Ondrej Kuzelka*

Efficient and Robust High-Dimensional Linear Contextual Bandits *Cheng Chen, Luo Luo, Weinan Zhang, Yong Yu, Yijiang Lian*

Learning Bayesian Networks Under Sparsity Constraints: A Parameterized Complexity Analysis *Niels Grüttemeier, Christian Komusiewicz*

Lifted Hybrid Variational Inference *Yuqiao Chen, Yibo Yang, Sriraam Natarajan, Nicholas Ruozzi*

Neural Belief Reasoner *Haifeng Qian*

Scaling Up AND/OR Abstraction Sampling *Kalev Kask, Bobak Pezeshki, Filjor Broka, Alexander Ihler, Rina Dechter*

State Variable Effects in Graphical Event Models *Debarun Bhattacharjya, Dharmashankar Subramanian, Tian Gao*

Special track on AI for CompSust and Human well-being

Fighting Wildfires under Uncertainty - A Sequential Resource Allocation Approach *Hau Chan, Long Tran-Thanh, Vignesh Viswanathan*

Adversarial Graph Embeddings for Fair Influence Maximization over Social Networks *Moein Khajehnejad, Ahmad Asgharian Rezaei, Mahmoudreza Babaei, Jessica Hoffmann, Mahdi Jalili, Adrian Weller*

Optimal and Non-Discriminative Rehabilitation Program Design for Opioid Addiction Among Homeless Youth *Amulya Yadav, Roopali Singh, Nikolas Siapoutis, Anamika Barman-Adhikari, Yu Liang*

Improving Tandem Mass Spectra Analysis with Hierarchical Learning *Zhengcong Fei*

Real-Time Dispatching of Large-Scale Ride-Sharing Systems: Integrating Optimization, Machine Learning, and Model Predictive Control *Connor Riley, Pascal van Hentenryck, Enpeng Yuan*

Cross-Interaction Hierarchical Attention Networks for Urban Anomaly Prediction *Chao Huang, Chuxu Zhang, Peng Dai, Liefeng Bo*

Forecasting Avian Migration Patterns using a Deep Bidirectional RNN Augmented with an Auxiliary Task *Kehinde Owoeye*

Multi-View Joint Graph Representation Learning for Urban Region Embedding *Mingyang Zhang, Tong Li, Yong Li, Pan Hui*

An Exact Single-Agent Task Selection Algorithm for the Crowdsourced Logistics *Chung-Kyun Han, Shih-Fen Cheng*

Bridging Cross-Tasks Gap for Cognitive Assessment via Fine-Grained Domain Adaptation *Yingwei Zhang, Yiqiang Chen, Hanchao Yu, Zeping Lv, Qing Li, Xiaodong Yang*

Who Am I?: Towards Social Self-Awareness for Intelligent Agents *Budhitama Subagdja, Han Yi Tay, Ah-Hwee Tan*

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