

**40th AAAI Conference on Artificial Intelligence (AAAI-26), 38th Conference on Innovative Applications of Artificial Intelligence (IAAI-26), and 16th Symposium on Educational Advances in Artificial Intelligence (EAAI-26)**

Volume 26: AAAI Technical Tracks

- Machine Learning III

Singapore  
20-27 January 2026

ISBN: 979-8-3313-3400-0

**Printed from e-media with permission by:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571



**Some format issues inherent in the e-media version may also appear in this print version.**

Copyright© (2026) by Association for the Advancement of Artificial Intelligence  
All rights reserved.

Printed with permission by Curran Associates, Inc. (2026)

For permission requests, please contact Association for the Advancement of Artificial Intelligence  
at the address below.

Association for the Advancement of Artificial Intelligence  
2275 East Bayshore Road  
Suite 160  
Palo Alto, California 94303  
USA

Phone: 1-650-328-3123  
Fax: 1-650-321-4457

<https://aaai.org/Press/press.php>

**Additional copies of this publication are available from:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: 845-758-0400  
Fax: 845-758-2633  
Email: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

# TABLE OF CONTENTS

## AAAI TECHNICAL TRACK ON MACHINE LEARNING III

4D Point Cloud Segmentation Via Active Test-Time Adaptation .....	21315
<i>Mingrong Gong, Chaoqi Chen, Luyao Tang, Yuxi Wang, Sergio Escalera</i>	
Behaviour Policy Optimization: Provably Lower Variance Return Estimates for Off-Policy Reinforcement Learning .....	21324
<i>Alex W. Goodall, Edwin Hamel-De Le Court, Francesco Belardinelli</i>	
SineLoRA $\Delta$ : Sine-Activated Delta Compression .....	21333
<i>Cameron Gordon, Yiping Ji, Hemanth Saratchandran, Paul Albert, Simon Lucey</i>	
Risk-Sensitive Exponential Actor Critic .....	21343
<i>Alonso Granados, Jason Pacheco</i>	
Out-Of-Distribution Generalization with a SPARC: Racing 100 Unseen Vehicles with a Single Policy .....	21352
<i>Bram Grooten, Patrick Macalpine, Kaushik Subramanian, Peter Stone, Peter R. Wurman</i>	
Constraint-Guided Clustering for Identifying in-Vehicle Electronic Control Units from Voltage Data .....	21361
<i>Bogdan Groza, Patricia Iosif, Lucian Popa</i>	
FLRQ: Faster LLM Quantization with Flexible Low-Rank Matrix Sketching .....	21369
<i>Hongyaoxing Gu, Lijuan Hu, Shuzi Niu, Fangfang Liu</i>	
UniME-V2: MLLM-As-A-Judge for Universal Multimodal Embedding Learning .....	21378
<i>Tiancheng Gu, Kaicheng Yang, Kaichen Zhang, Xiang An, Ziyong Feng, Yueyi Zhang, Weidong Cai, Jiankang Deng, Lidong Bing</i>	
DAVID: Dual-Stage Adaptive Vision-Text Integrated Decoupling for Multimodal KV Cache Eviction .....	21387
<i>Yifeng Gu, Jianxiu Jin, Kailing Guo, Xiangmin Xu</i>	
Graph Masked Autoencoder for Multi-View Remote Sensing Data Clustering .....	21396
<i>Renxiang Guan, Junhong Li, Siwei Wang, Tianrui Liu, Dayu Hu, Miaomiao Li, Xinwang Liu</i>	
Deformable Polygonal Flow Matching with Informed Priors and Hierarchical Graph Constraints .....	21405
<i>Arnaud Gueze, Matthieu Ospici, Damien Rohmer, Marie-Paule Cani</i>	
AirWino: Optimized Winograd Convolution for Accelerating CNN Inference on ARMv8 Processors .....	21414
<i>Haoyuan Gui, Xiaoyu Zhang, Yifan Zhang, Ximeng Fu, Shiqi Sun, Leisheng Li, Huiyuan Li</i>	
Disturbance-Based Discretization, Differentiable IDS Channel, and an IDS-Correcting Code for DNA-Based Storage .....	21423
<i>Alan J. X. Guo, Mengyi Wei, Yufan Dai, Yali Wei, Pengchen Zhang</i>	
Poisoning with a Pill: Circumventing Detection in Federated Learning .....	21432
<i>Hanxi Guo, Hao Wang, Tao Song, Tianhang Zheng, Yang Hua, Haibing Guan, Xiangyu Zhang</i>	

Exploring Transferability of Self-Supervised Learning by Task Conflict Calibration .....	21441
<i>Huijie Guo, Jingyao Wang, Peizheng Guo, Xingchen Shen, Changwen Zheng, Wenwen Qiang</i>	
Efficient Diffusion Planning with Temporal Diffusion .....	21450
<i>Jiaming Guo, Rui Zhang, Zerun Li, Yunkai Gao, Shaohui Peng, Siming Lan, Xing Hu, Zidong Du, Xishan Zhang, Ling Li</i>	
RMMEA: Robust Multi-Modal Entity Alignment with Missing and Noise Visual Modality .....	21459
<i>Lingbing Guo, Zhuo Chen, Yichi Zhang, Wenbin Guo, Haonan Yang, Zhao Li, Zirui Chen, Xin Wang</i>	
Fast Conformal Prediction Using Conditional Interquantile Intervals .....	21468
<i>Naixin Guo, Rui Luo, Zhixin Zhou</i>	
Neural Collapse Priors Driven Trust Semi-Supervised Multi-View Classification .....	21477
<i>Taotao Guo, Honglin Yuan, Xujian Zhao, Yuan Sun, Dongliang Wang, Zhenwen Ren, Xingfeng Li</i>	
SPEED-Q: Staged Processing with Enhanced Distillation Towards Efficient Low-Bit On-Device VLM Quantization .....	21486
<i>Tianyu Guo, Shanwei Zhao, Shiai Zhu, Chenguang Ma</i>	
Gotta Hear Them All: Towards Sound Source Aware Audio Generation .....	21495
<i>Wei Guo, Heng Wang, Jianbo Ma, Weidong Cai</i>	
AV-Edit: Multimodal Generative Sound Effect Editing Via Audio-Visual Semantic Joint Control .....	21504
<i>Xinyue Guo, Xiaoran Yang, Lipan Zhang, Jianxuan Yang, Zhao Wang, Jian Luan</i>	
AHAMask: Reliable Task Specification for Large Audio Language Models Without Instructions .....	21513
<i>Yiwei Guo, Bohan Li, Hankun Wang, Zhihan Li, Shuai Wang, Xie Chen, Kai Yu</i>	
From Diagnosis to Generalization: A Cognitive Approach to Data Selection for Educational LLMs.....	21522
<i>Yuxiang Guo, Yan Zhuang, Qi Liu, Zhenya Huang, Xianquan Wang, Liyang He, Jiatong Li, Rui Li, Shijin Wang</i>	
On Robustness of Linear Classifiers to Targeted Data Poisoning .....	21531
<i>Nakshatra Gupta, Sumanth Prabhu S, Supratik Chakraborty, Venkatesh R</i>	
DiCaP: Distribution-Calibrated Pseudo-Labeling for Semi-Supervised Multi-Label Learning .....	21540
<i>Bo Han, Zhuoming Li, Xiaoyu Wang, Yaxin Hou, Hui Liu, Junhui Hou, Yuheng Jia</i>	
Vision Transformers Are Circulant Attention Learners .....	21549
<i>Dongchen Han, Tianyu Li, Ziyi Wang, Gao Huang</i>	
Variance Reduction Via Resampling and Experience Replay .....	21558
<i>Jiale Han, Xiaowu Dai, Yuhua Zhu</i>	
Implicit Neural Representation with Multi-Scale Sine Activation .....	21567
<i>Jufeng Han, Shu Wei, Min Wu, Lina Yu, Weijun Li, Linjun Sun, Hong Qin, Yan Pang</i>	
Oligodendrocyte-Driven Spiking Neural Model .....	21576
<i>Mengqiao Han, Liyuan Pan, Xiabi Liu, Hongming Zhang</i>	
Federated Graph-Level Clustering Network with Attribute Inference .....	21585
<i>Renda Han, Junlong Wu, Wenxuan Tu, Jingxin Liu, Haotian Wang, Jieren Cheng</i>	

Aggregate-Combine-Readout GNNs Can Express Logical Classifiers Beyond the Logic C2 .....	21594
<i>Stan P Hauke, Przemyslaw Andrzej Walega</i>	
Forgetting by Pruning: Data Deletion in Join Cardinality Estimation .....	21602
<i>Chaowei He, Yuanjun Liu, Qingzhi Ma, Shenyuan Ren, Xizhao Luo, Lei Zhao, An Liu</i>	
S2-Boost: Synergistic Semantic Boosting for Coarse-To-Fine Ensemble Learning.....	21610
<i>Guanxiong He, Zheng Wang, Jie Wang, Liaoyuan Tang, Rong Wang, Feiping Nie</i>	
Towards Federated Clustering: A Client-Wise Private Graph Aggregation Framework .....	21619
<i>Guanxiong He, Zheng Wang, Jie Wang, Liaoyuan Tang, Rong Wang, Feiping Nie</i>	
HiQ-Lip: A Hierarchical Quantum-Classical Method for Global Lipschitz Constant Estimation of ReLU Networks.....	21628
<i>Haoqi He, Yan Xiao, Wenzhi Xu, Ruoying Liu, Xiaokai Lin, Kai Wen</i>	
Improving Generalization in Offline Meta-Reinforcement Learning Via Cross-Task Contexts.....	21637
<i>Hongcai He, Zetao Zheng, Anjie Zhu, Deqiang Ouyang, Jie Shao</i>	
Harnessing Textual Semantic Priors for Knowledge Transfer and Refinement in CLIP-Driven Continual Learning.....	21645
<i>Lingfeng He, De Cheng, Di Xu, Huaijie Wang, Nannan Wang</i>	
Reliability-Guaranteed and Reward-Seeking Sequence Modeling for Model-Based Offline Reinforcement Learning .....	21654
<i>Shenghong He, Chao Yu, Qian Lin, Yile Liang, Donghui Li, Xuetao Ding</i>	
A Stage-Aware Mixture of Experts Framework for Neurodegenerative Disease Progression Modelling .....	21663
<i>Tiantian He, Keyue Jiang, An Zhao, Anna Schroder, Elinor Thompson, Sonja Soskic, Frederik Barkhof, Daniel C. Alexander</i>	
Dual Mamba for Node-Specific Representation Learning: Tackling Over-Smoothing with Selective State Space Modeling.....	21672
<i>Xin He, Yili Wang, Yiwei Dai, Xin Wang</i>	
Deferred Poisoning: Making the Model More Vulnerable Via Hessian Singularization .....	21681
<i>Yuhao He, Jinyu Tian, Xianwei Zheng, Li Dong, Yuanman Li, Jiantao Zhou</i>	
Harnessing Vision-Language Models for Time Series Anomaly Detection .....	21690
<i>Zelin He, Sarah Alnegheimish, Matthew Reimherr</i>	
Out-Of-Distribution Detection with Positive and Negative Prompt Supervision Using Large Language Models .....	21699
<i>Zhixia He, Chen Zhao, Minglai Shao, Xintao Wu, Xujiang Zhao, Dong Li, Qin Tian, Linlin Yu</i>	
Posterior Label Smoothing for Node Classification .....	21708
<i>Jaeseung Heo, Moonjeong Park, Dongwoo Kim</i>	
Beyond Fixed Depth: Adaptive Graph Neural Networks for Node Classification Under Varying Homophily.....	21717
<i>Asela Hevavathige, Asiri Wijesinghe, Ahad N. Zehmakan</i>	
Uncertainty Quantification for Machine Learning: One Size Does Not Fit All .....	21726
<i>Paul Hofman, Yusuf Sale, Eyke Hüllermeier</i>	

From Attribution to Action: Jointly ALIGNing Predictions and Explanations.....	21735
<i>Dongsheng Hong, Chao Chen, Yanhui Chen, Shanshan Lin, Zhihao Chen, Xiangwen Liao</i>	
Distributional Priors Guided Diffusion for Generating 3D Molecules in Low Data Regimes .....	21743
<i>Haokai Hong, Wanyu Lin, Ming Yang, Kay Chen Tan</i>	
HINPool: A Unified Heterogeneous Graph Pooling Framework for Accurate Molecular and Protein Property Prediction.....	21752
<i>Ming-Yi Hong, You-Chen Teng, Shao-En Lin, Chih-Yu Wang, Che Lin</i>	
Lost in Time? a Meta-Learning Framework for Time-Shift-Tolerant Physiological Signal Transformation .....	21761
<i>Qian Hong, Cheng Bian, Xiao Zhou, Xiaoyu Li, Yelei Li, Zijing Zeng</i>	
Harmonic Dataset Distillation for Time Series Forecasting .....	21770
<i>Seungha Hong, Sanghwan Jang, Wonbin Kweon, Suyeon Kim, Gyuseok Lee, Hwanjo Yu</i>	
Gradient-Protected Value Decomposition for Cooperative Multi-Agent Reinforcement Learning.....	21779
<i>Jie Hou, Haowen Dou, Lujuan Dang, Liangjun Chen, Chenyang Ge</i>	
A Theoretical Analysis of Detecting Large Model-Generated Time Series.....	21788
<i>Junji Hou, Junzhou Zhao, Shuo Zhang, Pinghui Wang</i>	
Graph Out-Of-Distribution Detection Via Test-Time Calibration with Dual Dynamic Dictionaries.....	21797
<i>Yue Hou, Ruomei Liu, Yingke Su, Junran Wu, Ke Xu</i>	
Denoising Mixup for Regression.....	21805
<i>Zhengzhang Hou, Zhanshan Li, Yanbo Liu, Geoff Nitschke, You Lu, Ximing Li</i>	
Venom: Liquid Diffusion-Guided Gradient Inversion for Breaking Differential Privacy in Federated Learning .....	21814
<i>Bin Hu, Jingling Yuan, Jiawei Jiang, Chuang Hu</i>	
Invariant Conditional Molecular Generation Under Distribution Shift.....	21823
<i>Chunyu Hu, Tianyin Liao, Yicheng Sui, Ran Zhang, Xiao Wang, Ziwei Zhang</i>	
Hyper-Opinion Vagueness Quantification for Robust Multimodal Learning .....	21831
<i>Disen Hu, Xun Jiang, Xiaofeng Cao, Zheng Wang, Jingkuan Song, Heng Tao Shen, Xing Xu</i>	
Look Closer! an Adversarial Parametric Editing Framework for Hallucination Mitigation in VLMs .....	21840
<i>Jiayu Hu, Beibei Li, Jiangwei Xia, Yanjun Qin, Bing Ji, Zhongshi He</i>	
FedTopo: Topology-Informed Representation Alignment in Federated Learning Under Non-I.I.D. Conditions .....	21849
<i>Ke Hu, Liyao Xiang, Peng Tang, Weidong Qiu</i>	
FedLAGC: Towards High Performance System-Heterogeneous Federated Learning Via Layer-Adaptive Submodel Extraction and Gradient Correction .....	21858
<i>Qing Hu, Tianchi Liao, Shuyi Wu, Lei Yang, Chuan Chen</i>	
Prototype-Based Semantic Consistency Alignment for Domain Adaptive Retrieval .....	21867
<i>Tianle Hu, Weijun Lv, Na Han, Xiaozhao Fang, Jie Wen, Jiaying Li, Guoxu Zhou</i>	
Beyond Monotonicity: Revisiting Factorization Principles in Multi-Agent Q-Learning .....	21876
<i>Tianmeng Hu, Yongzheng Cui, Rui Tang, Biao Luo, Ke Li</i>	

Mosaic Pruning: A Hierarchical Framework for Generalizable Pruning of Mixture-Of-Experts Models.....	21885
<i>Wentao Hu, Mingkuan Zhao, Shuangyong Song, Xiaoyan Zhu, Xin Lai, Jiayin Wang</i>	
Enhancing Diffusion Policies with Distribution-Matching Generator in Offline Reinforcement Learning .....	21894
<i>Xuemin Hu, Shen Li, Yingfen Xu, Bo Tang, Long Chen</i>	
Towards Acyclic Preference Evaluation of Language Models Via Multiple Evaluators .....	21903
<i>Zhengyu Hu, Jieyu Zhang, Zhihan Xiong, Alexander Ratner, Kaize Ding, Ranjay Krishna</i>	
Robust Decentralized Multi-Armed Bandits: From Corruption-Resilience to Byzantine-Resilience .....	21912
<i>Zicheng Hu, Yuchen Wang, Cheng Chen</i>	
Double Rounding: Nearly Lossless Adaptive Bit Switching for QAT.....	21921
<i>Haiduo Huang, Zhenhua Liu, Tian Xia, Pengju Ren</i>	
PartialNet: Compute Less, Perform Better .....	21930
<i>Haiduo Huang, Tian Xia, Wenzhe Zhao, Pengju Ren</i>	
BayesAgent: Bayesian Agentic Reasoning Under Uncertainty Via Verbalized Probabilistic Graphical Modeling.....	21939
<i>Hengguan Huang, Xing Shen, Guang-Yuan Hao, Songtao Wang, Lingfa Meng, Dianbo Liu, David Alejandro Duchene, Hao Wang, Samir Bhatt</i>	
Simulated Rewards, Skewed Strategies: Tracing the Acquired Preference Bias in LLM-Based Dialogue Planners.....	21948
<i>Heyan Huang, Yizhe Yang, Huashan Sun, Jiawei Li, Yang Gao</i>	
Recovering Coherent Affective Patterns: Addressing Modality Missing in Multimodal Sentiment Analysis.....	21957
<i>Huiting Huang, Tieliang Gong, Kai He, Wen Wen, Weizhan Zhang, Mengling Feng</i>	
Richer Representations for Neural Algorithmic Reasoning Via Auxiliary Reconstruction .....	21966
<i>Jiafu Huang, Chao Peng, Chenyang Xu, Zhengfeng Yang, Kecheng Cai, Chenhao Zhang, Yi Wang, Yiwei Gong, Wanqin Zhou, Irene Zheng</i>	
SemanticNN: Compressive and Error-Resilient Semantic Offloading for Extremely Weak Devices .....	21975
<i>Jiaming Huang, Yi Gao, Fuchang Pan, Renjie Li, Wei Dong</i>	
Self-Interpretable Subgraph Neural Network with Deep Reinforcement Walk Exploration .....	21984
<i>Jianming Huang, Hiroyuki Kasai</i>	
Function-On-Function Bayesian Optimization.....	21994
<i>Jingru Huang, Haijie Xu, Manrui Jiang, Chen Zhang</i>	
Trimming the Fat: Redundancy-Aware Acceleration Framework for DGNNs.....	22003
<i>Renhong Huang, Yuxuan Cao, Yi Li, Junwei Hu, Zihua Xiong, Shuai Fang, Sheng Guo, Bo Zheng, Yang Yang</i>	
HMformer: Unleashing Transformer’s Potential for Time Series Forecasting Via Hierarchical Multi-Scale Modeling.....	22012
<i>Renjun Huang, Han Xiao, Bingqing Li, Baili Zhang, Jianhua Lyu</i>	
Sparse Poisson Gamma Belief Networks for High-Dimensional Sparse Count Data .....	22021
<i>Rui Huang, Dian Meng, Xun Zhou, Sikun Yang</i>	

Feature Attribution for Human Sensing with Radio Signals .....	22030
<i>Shuokang Huang, Julie McCann</i>	
CoLM: Collaborative Large Models Via a Client-Server Paradigm.....	22039
<i>Siqi Huang, Sida Huang, Hongyuan Zhang</i>	
FedRNC: Addressing Spatio-Temporal Label Misalignment in Federated Noisy Class-Incremental Learning .....	22048
<i>Xingwei Huang, Zhaobin Sun, Junjie Shi, Xin Yang, Zengqiang Yan</i>	
PhysicsCorrect: A Training-Free Approach for Stable Neural PDE Simulations .....	22057
<i>Xinquan Huang, Paris Perdikaris</i>	
Federated Linear Dueling Bandits.....	22066
<i>Xuhan Huang, Yan Hu, Zhiyan Li, Zhiyong Wang, Zhongxiang Dai</i>	
M2FMoE: Multi-Resolution Multi-View Frequency Mixture-Of-Experts for Extreme-Adaptive Time Series Forecasting .....	22075
<i>Yaohui Huang, Runmin Zou, Yun Wang, Laeeq Aslam, Ruipeng Dong</i>	
Is the Information Bottleneck Robust Enough? Towards Label-Noise Resistant Information Bottleneck Learning .....	22084
<i>Yi Huang, Qingyun Sun, Yisen Gao, Haonan Yuan, Xingcheng Fu, Jianxin Li</i>	
FedSDWC: Federated Synergistic Dual-Representation Weak Causal Learning for OOD.....	22092
<i>Zhenyuan Huang, Hui Zhang, Wenzhong Tang, Haijun Yang</i>	
Wasserstein-Aware Transfer: Class-Level Alignment for Robust Diffusion Model Adaptation.....	22101
<i>Zixian Huang, Chuan-Xian Ren</i>	
Efficient Reinforcement Learning for Zero-Shot Coordination in Evolving Games.....	22110
<i>Bingyu Hui, Lebin Yu, Quanming Yao, Yunpeng Qu, Xudong Zhang, Jian Wang</i>	
Oxytrees: Model Trees for Bipartite Learning.....	22119
<i>Pedro Ilídio, Felipe Kenji Nakano, Alireza Gharahighihi, Robbe D'Hondt, Ricardo Cerri, Celine Vens</i>	
FedPM: Federated Learning Using Second-Order Optimization with Preconditioned Mixing of Local Parameters .....	22128
<i>Hiro Ishii, Kenta Niwa, Hiroshi Sawada, Akinori Fujino, Noboru Harada, Rio Yokota</i>	
On the Information Processing of One-Dimensional Wasserstein Distances with Finite Samples.....	22137
<i>Cheongjae Jang, Jonghyun Won, Soyeon Jun, Chun Kee Chung, Keehyoung Joo, Yung-Kyun Noh</i>	
Quantifying and Improving Adaptivity in Conformal Prediction Through Input Transformations.....	22146
<i>Sooyong Jang, Insup Lee</i>	
Enhancing Chemical Explainability Through Counterfactual Masking .....	22155
<i>Lukasz Janisiów, Marek Kochanzyk, Bartosz Michal Zielinski, Tomasz Danel</i>	
LILAD: Learning In-Context Lyapunov-Stable Adaptive Dynamics Models .....	22164
<i>Amit Jena, Na Li, Le Xie</i>	
An Information Theoretic Evaluation Metric for Strong Unlearning .....	22173
<i>Dongjae Jeon, Wonje Jeung, Taeheon Kim, Albert No, Jonghyun Choi</i>	

CANVAS: A Benchmark for Vision-Language Models on Tool-Based User Interface Design .....	22182
<i>Daeheon Jeong, Seoyeon Byun, Kihoon Son, Dae Hyun Kim, Juho Kim</i>	
Jump-Teaching: Combating Sample Selection Bias Via Temporal Disagreement .....	22191
<i>Kangye Ji, Fei Cheng, Zeqing Wang, Qichang Zhang, Bohu Huang</i>	
Multi-View Differential Mixing and Graph-Guided Structural Region Selection for Cross-Modal Alignment.....	22200
<i>Linlin Ji, Li Liu</i>	
HTG-GCL: Leveraging Hierarchical Topological Granularity from Cellular Complexes for Graph Contrastive Learning .....	22209
<i>Qirui Ji, Bin Qin, Yifan Jin, Yunze Zhao, Chuxiong Sun, Changwen Zheng, Jianwen Cao, Jiangmeng Li</i>	
Diff-V2M: A Hierarchical Conditional Diffusion Model with Explicit Rhythmic Modeling for Video-To-Music Generation .....	22219
<i>Shulei Ji, Zihao Wang, Jiaying Yu, Xiangyuan Yang, Shuyu Li, Songruoyao Wu, Kejun Zhang</i>	

**Author Index**