

Conference Program ICTAI 2023



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Message from the ICTAI 2023 General Chairs

On behalf of the organizing committees, we welcome you to the 35th IEEE International Conference on Tools with Artificial Intelligence (ICTAI 2023) held in Atlanta, GA, USA.

First of all, we really appreciate the authors who submitted their papers and participated in the conference activities. We also appreciate the time and effort of the area chairs, program committee members, the reviewers for advertising the conference and evaluating the papers.

Most of all we would like to express our great appreciation to this year's Program Chairs, Professors Ming Yang and Gennaro Cordasco, for their time and effort in every aspect of the conference: inviting area chairs and program committee members; creating and managing the conference Web site; managing the review process of submitted papers; communicating with the authors and committee members; and editing the proceedings.

We would also recognize and appreciate the sponsorship provided by the IEEE Computer Society and BAIF.

Thank you for your participation, and hope that you will enjoy ICTAI 2023.

Best regards

Professor Anna Esposito

ICTAI 2023 General Chair

Message from the ICTAI 2023 Program Chair

Dear ICTAI 2023 participants on the behalf of the organizing and program committees, I welcome you to the 35th IEEE International Conference on Tools with Artificial Intelligence (ICTAI 2023) held in Atlanta, GA, USA.

The ICTAI series is a very special high quality forum where researchers share knowledge in the field of Tools with Artificial Intelligence presenting their scientific achievements and the tools (architectures, languages and algorithms) they have developed for solving scientific and engineering problems.

As for any year, submissions have been solicited and received in the areas of AI Foundations; AI Domain-Specific Applications; AI Computing Systems; Machine Learning; Data Mining; Semantic Web, Reasoning; Intelligent Agents; AI based Decision Making, AI in Assistive Technologies, as well as, Constraint Solving Programming (CSP) and SAT-based technologies.

A total number of 408 submissions were received around of the world, all high quality papers. To this aims I want to thank contributors of both accepted and rejected papers. All strong and scientifically interesting projects were submitted. However, the acceptance threshold was set very high and therefore, only 35% of the submitted papers was included in the ICTAI 2015 proceedings. More specifically, there are two categories of accepted papers, full and short. The acceptance of the full papers was 21%.

The successful journey of ICTAI 2015 was due to the hard and voluntary work of many people. I am not reporting all of them, but I must mention some, because without their support and contribute I would have been lost.

First, we want to thanks the Steering committee chair, Professor Nikolaos Bourbakis, who was with us all the time, helping, providing precious suggestions and sharing with us his long time experience in running ICTAI as founder. we would have not made the conference without his practical and emotional support.

Following the ICTAI practice in supporting and granting students' participation in the conference, I am pleased to announce that ICTAI

2023 will acknowledge 5 best student paper awards based on the scores from the review process and their presentations in the conference. In addition, the Best Conference paper Award will given during the gala dinner.

The ICTAI Series build up its success on the work of people that year by year had contribute to made it a worldwide event. To this aim, we would like to express my deep appreciation to the ICTAI general chair, Professor **Anna Esposito**, for the support received in initiating this year event

We would like to thank the Financial & Registration Chairs, **Michail Alexiou** and **Zhigang Li**, the Web Chair **Durga Narayana Varma Addepalli**, and the Publicity Chairs **Carmela Comito**, **Chloe Xie** and **Jian Yu**.

The revision process would have been not possible without the dedication of the ICTAI Area Chairs and the ICTAI Program Committee members, which are listed in the previous pages. we owe them for taking in charge the revisions during a deserved vacation period, for their accurate review work, and their valuable selection process.

Finally, we want to thanks the institutional sponsors: a) IEEE Computer Society, b) Biological & Artificial Intelligence Foundation (BAIF) for their support on this journey.

Most importantly, we are extremely grateful to the ICTAI 2023 contributors and keynote speakers whose work I hope will stimulate an interesting interaction among the ICTAI attendees, in order to make this event a scientifically stimulating gathering and a memorable personal experience.

We wish you an exciting and productive conference time.

Professor Gennaro Cordasco
Professor Ming Yang
ICTAI 2023 Program Chairs

Day-1: Monday, Nov. 6, 2023

07:30 - REGISTRATION

08:15 – 08:30 WELCOME

08:30 - 09:30 **KEYNOTE SPEECH:** Statistical Learning and Logical Reasoning
Sukarno Mertoguno (Chair Nikolaos G. Bourbakis)

09:30 - 10:00 COFFEE BREAK

10:00 – 12:00 Sessions

Track-1	Track-2	Track-3
AI TOOLS AND MODELS I	NL PROCESSING I	CLASSIFICATION METHODS I
<p>Session Chair: <i>Ming Yang</i></p> <ul style="list-style-type: none"> • A Novel Metric for XAI Evaluation Incorporating Pixel Analysis and Distance Measurement <i>Jan Stodt, Christoph Reich and Nathan Clarke</i> • A two-stage approach for tables extraction in invoices <i>Thomas Saout, Frederic Lardeux and Frédéric Saubion</i> • A framework for paired-sample hypothesis testing for high-dimensional data <i>Ioannis Bargiotas, Argyris Kalogeratos and Nicolas Vayatis</i> • IArch : An AI Tool for Digging Deeper into Archaeological Data <i>Chahrazed Labba, Ameline Alcouffe, Eric Crubézy and Anne Boyer</i> • ToonMeet: A real-time portrait toonification framework with frame interpolation fine-tuned for online meeting <i>Chenhao Chen, Shogo Fukushima, Yugo Nakamura and Yutaka Arakawa</i> • The Chameleon Systems: A new Approach in Anticipatory based Decision Making Systems with Application to Electricity Markets <i>Miltos Alamaniotis</i> 	<p>Session Chair: <i>Gennaro Cordasco</i></p> <ul style="list-style-type: none"> • Societal Versus Encoded Stereotypes in Text Encoders <i>Yacine Gaci, Boualem Benatallah, Fabio Casati and Khalid Benabdeslem</i> • An Evaluation of Table Detection Methods in Document Images <i>Michail Alexiou, Euripides Petrakis and Nikolaos Bourbakis</i> • Authentic Dialogue Generation to Improve Youth's Awareness of Cybergrooming for Online Safety <i>Zhen Guo, Pei Wang, Lifu Huang and Jin-Hee Cho</i> • Rule-Augmented Artificial Intelligence-empowered Systems for Medical Diagnosis using Large Language Models <i>Dimitris Panagoulas, Filippos Palamidas, Maria Virvou and George A. Tsihrintzis</i> 	<p>Session Chair: <i>Zhigang Li</i></p> <ul style="list-style-type: none"> • One-Class Classifier Performance: Comparing Majority versus Minority Class Training <i>Joffrey Leevy, John Hancock, Taghi Khoshgoftaar and Azadeh Abdollah Zadeh</i> • A Model-Agnostic Feature Selection Technique to Improve the Performance of One-Class Classifiers <i>John Hancock, Richard Bauder and Taghi Khoshgoftaar</i> • RSMS: Robust Semi-supervised Multi-label Feature Selection for Regression <i>Vivien Kraus, Khalid Benabdeslem, Seif-Eddine Benkabou, Dou El Kefel Mansouri and Bruno Canitia</i>

12:00 - 13:30 LUNCH

13:30 - 15:30
Sessions

Track-1		Track-2		Track-3	
MACHINE LEARNING I		RECOMMENDATION SYSTEMS AND PREDICTION I		REASONING & CONSTRAINTS	
Session Chair: <i>Chloe Xie</i>		Session Chair: <i>Sukarno Mertoguno</i>		Session Chair: <i>Michail Alexiou</i>	
<ul style="list-style-type: none">• A Systematic Evaluation of Machine Learning Approaches for Petroleum Production Forecasting <i>Marcos Vinicius Ludwig Pivetta, Joel Luis Carbonera, Artur Henrique Simon and Matheus de Moraes Costa</i>• Personalized One-Shot Collaborative Learning <i>Marie Garin, Antoine de Mathelin, Mathilde Mougeot and Nicolas Vayatis</i>• EEG Context Fusion for AI-Based Object Detection and Drone Navigation in Situationally Aware Brain-Computer Interfaces <i>Thomas de Wit, Vineetha Menon, Nathan Tenhundfeld and Thomas Davis</i>• Ensemble Learning for Mapper Parameter Optimization <i>Padraig Fitzpatrick, Anna Jurek-Loughrey, Paweł Dłotko and Jesus Martinez-del-Rincon</i>		<ul style="list-style-type: none">• Comparative Crime Analysis and Prediction Using Machine Learning Algorithms: Assessing the Tools and Addressing the Threats <i>Chibuike R. Umeike</i>• A Location-Independent Flood Prediction Model for Bangladesh's Rivers <i>Md Abid Hasan, Nirjhor Tahmidur Rouf, Md Sajid Hossain, Anika Tasnim and Marcin Grzegorzek</i>• DICE: Data Imputation for Cost Estimates from Multiple Sources to Model User Decision-Making <i>Hailun Wu, Ziqian Dong and Roberto Rojas-Cessa</i>• Fine-tuning Strategies for Domain Specific Question Answering under Low Annotation Budget Constraints <i>Kunpeng Guo, Dennis Diefenbach, Antoine Gourru and Christophe Gravier</i>		<ul style="list-style-type: none">• VFLH: A Following-the-Leader-History Based Algorithm for Adaptive Online Convex Optimization with Stochastic Constraints <i>Yifan Yang, Lin Chen, Xiaofeng Ding and Pan Zhou</i>• Voting-based Methods for Evaluating Sources and Facts Reliability <i>Quentin Elsaesser, Patricia Everaere and Sébastien Konieczny</i>• Binary Search-Based Methods for Solving Constraint Hierarchies over Finite Domains <i>Hiroshi Hosobe and Ken Satoh</i>• MusiComb: a Sample-based Approach to Music Generation Through Constraints <i>Luca Giuliani, Francesco Ballerini, Allegra De Filippo and Andrea Borghesi</i>• Graph based Hiding of Sensitive Knowledge <i>Panteleimon Krasadakis, Evangelos Sakkopoulos, Giuseppe Futia and Vassilios Verykios</i>	

15:30 - 16:00

COFFEE BREAK

16:00 - 18:00

Sessions

	Track-1	Track-2	Track-3
	AI TOOLS AND MODELS II	GRAPH AND NETWORKS	NEURAL NETWORKS I
	<p>Session Chair: <i>Ming Yang</i></p> <ul style="list-style-type: none">• Suspicious: a Resilient Semi-Supervised Framework for Graph Fraud Detection <i>Bastien Giles, Baptiste Jeudy, Christine Largeron and Damien Saboul</i>• Connectable and Independent Junction Tree-based Compilation Technique of Object-Oriented Bayesian Networks <i>A. M. Aahad, K. B. Yamin, Md Samiullah, Chowdhury Farhan Ahmed and Carson Kai-Sang Leung</i>• Hybrid CNN-LSTM and Domain Modeling in Climate-Energy Analysis for a Smart Environment <i>Sarahana Shrestha, Brian Buckley, Aparna Varde and Daniel Cwynar</i>• Attention Enhanced Network with Semantic Inspector for Medical Image Report Generation <i>Yihan Lin, Qian Tang, Hao Wang, Cheng Huang, Favour Ekong, Xiangxiang Wang, Xiao Feng and Yongbin Yu</i>• Persona-Coded Poly-Encoder: A Persona-Guided Multi-Stream Sentence Scoring System for Better Conversational Agent <i>Junfeng Liu, Christopher Symons and Ranga Raju Vatsavai</i>	<p>Session Chair: <i>Gennaro Cordasco</i></p> <ul style="list-style-type: none">• Graph Neural Networks with No Supervision and Heuristics for the Kidney-Exchange Problem <i>Luis Lamb, Pedro Avelar and Pedro Pimenta</i>• Identifying relevant descriptors for tweet sets <i>Olivier Gracianne, Anaïs Lefeuvre-Halftermeyer and Thi-Bich-Hanh Dao</i>• A Survey on Recent Advancements in Lightweight Generative Adversarial Networks and their Applications <i>Michail Alexiou and Sukarno Mertoguno</i>• Deep Reinforcement Learning Based Efficient and Robust Navigation Method For Autonomous Applications <i>Nathan Hemming and Vineetha Menon</i>• Solving Reconfiguration Problems of First-Order Expressible Properties of Graph Vertices with Boolean Satisfiability <i>Takahisa Toda, Takehiro Ito, Jun Kawahara, Takehide Soh, Akira Suzuki and Junichi Teruyama</i>	<p>Session Chair: <i>Zhigang Li</i></p> <ul style="list-style-type: none">• Grow, prune or select data: which technique allows the most energy-efficient neural network training? <i>Anais Boumendil, Walid Bechkit, Pierre-Edouard Portier, Frédéric Le Mouël and Malcolm Egan</i>• Res-ViT: Residual Vision Transformers for Image Recognition Tasks <i>Sayda Elmi and Morris Bell</i>• DBERT-ELVA: Discourse-Aware Extractive Text Summarization with Autoencoder <i>Mahsa Abazari Kia</i>• On data selection for the energy efficiency of neural networks: Towards a new solution based on a dynamic selectivity ratio <i>Anais Boumendil, Walid Bechkit and Karima Benatchba</i>

Day-2: Tuesday, Nov. 7, 2023

08:00 - REGISTRATION

08:30 - 09:30 **KEYNOTE SPEECH:** *AI for Digital Health: Wherever You Go, Whatever You Say*
Björn W. Schuller (Chair *Anna Esposito*)

09:30 - 10:00 **COFFEE BREAK**

10:00 - 12:00
Sessions

Track-1	Track-2	Track-3
PLANNING AND PATH FINDING	SEARCH AND SCHEDULING	NEURAL NETWORKS II
<p>Session Chair: <i>Nikolaos G. Bourbakis</i></p> <ul style="list-style-type: none"> • Non-Refined Abstractions in Counterexample Guided Abstraction Refinement for Multi-Agent Path Finding <i>Pavel Surynek</i> • Integral AI-based planning for management of WSNs in military operations <i>Javier Caballero Testón, Olaya Pérez Mon, María D. Rodríguez Moreno and Julio de Oliveira Filho</i> • On Semantics of Hierarchical Planning Domain Models with Decomposition Constraints and Empty Methods <i>Simona Ondrčková and Roman Barták</i> • AV-MaskEnhancer: Enhancing Video Representations through Audio-Visual Masked Autoencoder <i>Xingjian Diao, Ming Cheng and Shitong Cheng</i> • A Knowledge Representation Framework for Evolutionary Simulations with Cognitive Agents <i>Nausheen Shahid, Dan O'Keeffe and Kostas Stathis</i> 	<p>Session Chair: <i>Chloe Xie</i></p> <ul style="list-style-type: none"> • Solving Highly Constrained 3D Heterogeneous Truck Loading Problems: A Contribution to the 2022 EURO/ROADEF Challenge <i>Mokhtar Essaid, Abdennour Azerine, Mahmoud Golabi, Julien Lepagnot and Lhassane Idoumghar</i> • Dynamic All-Different and Maximal Cliques Constraints for Fixed Job Scheduling <i>Ruixin Wang and Nicolas Barnier</i> • Using On-The-Fly Model Checking to improve Constraint Programming for Dynamic Problems <i>Florian Régis and Elisabetta De Maria</i> • Improving a multiobjective evolutionary algorithm applied to batch scheduling in pharmaceutical manufacturing <i>Debora Toshie Kohara, Luiz Gustavo Almeida Martins and Gina Maira Barbosa de Oliveira</i> • Random Forest Assisted Differential Evolution for Multi-server Congested p-median Problem <i>Muhammad Sulaman, Mahmoud Golabi, Mokhtar Essaid, Julien Lepagnot, Mathieu Brevilliers and Lhassane Idoumghar</i> 	<p>Session Chair: <i>Sachi Nandan Mohant</i></p> <ul style="list-style-type: none"> • Finding the appropriate harvest time of coffee fruits using convolutional neural networks <i>Anage C. Mundim Filho, Darlisson Medeiros, Cleyton Alvarenga, Gleice Assis, Paula Rinaldi, Renan Zampiroli, Enrique Alves and Murillo G. Carneiro</i> • Verifying Neural Networks with Non-Linear SMT Solvers: a Short Status Report <i>Dario Guidotti, Laura Pandolfo and Luca Pulina</i> • The remote sensing image segmentation of land cover based on multi-scale attention features <i>Haiyang Hu, Linnan Yang, Jiaojiao Chen and Shuang Luo</i> • Pedestrian Recognition with Radar Data-Enhanced Deep Learning Approach Based on Micro-Doppler Signatures <i>Haoming Li, Yu Xiang, Haodong Xu and Wenyong Wang</i> • Conditional Data Synthesis with Deep Generative Models for Imbalanced Dataset Oversampling <i>Leonidas Akritidis, Athanasios Fevgas, Miltos Alamaniotis and Panayiotis Bozanis</i>

12:00 - 13:30 LUNCH

13:30 - 15:30 Sessions

Track-1	Track-2	Track-3
XAI AND ETHICS	DETECTION I	OPTIMIZATION AND NL PROCESSING
<p>Session Chair: Anna Esposito</p> <ul style="list-style-type: none">• A Formal Introduction to Batch-Integrated Gradients for Temporal Explanations <i>Jamie Duell, Monika Seisenberger, Tianlong Zhong, Hsuan Fu and Xiuyi Fan</i>• AI Algorithmic Bias: Understanding its Causes, Ethical and Social Implications <i>Lakshitha Rikhab Chand Jain and Vineetha Menon</i>• Learning to identify and settle dilemmas through contextual user preferences <i>Rémy Chaput, Laetitia Matignon and Mathieu Guillermin</i>• Invertible Neural Network for Trustworthy AI <i>Malgorzata Schwab and Ashis Biswas</i>• Tailored Explainability in Medical Artificial Intelligence-empowered Applications: Requirement Analysis based on the Technology Acceptance Model <i>Dimitrios Panagoulas, Maria Virvou and George A. Tsihrintzis</i>• Distance-Aware eXplanation Based Learning <i>Misgina Tsighe Hagos, Niamh Belton, Kathleen Curran and Brian Mac Namee</i>	<p>Session Chair: <i>Ming Yang</i></p> <ul style="list-style-type: none">• Unsupervised Learning of Dirichlet Compound Negative Multinomial Mixture Model using Minorization-Maximization Approach <i>Ornela Bregu and Nizar Bouguila</i>• A Federated Learning Approach for Anomaly Detection in High-Performance Computing <i>Emmen Farooq and Andrea Borghesi</i>• AI on the Road: A Comprehensive Analysis of Traffic Accidents and Accident Detection System in Smart Cities <i>Victor Adewopo, Nelly Elsayed, Zag Elsayed, Murat Ozer, Victoria Wangia-Anderson and Ahmed Abdelgawad</i>• PEAK: Policy Event Assessment of COVID-19 Cases at the Start of the Pandemic in New York City <i>Amit Hiremath, Ziqian Dong and Roberto Rojas-Cessa</i>• Enhancing Change Detection in Spectral Images: Integration of UNet and ResNet Classifiers <i>Emna Brahim, Emna Amri and Walid Barhoumi</i>	<p>Session Chair: <i>Michail Alexiou</i></p> <ul style="list-style-type: none">• Global min-max Computation for α-Hölder Games <i>Aurelien Delage, Olivier Buffet and Jilles Steeve Dibangoye</i>• An Interpretable LSTM Network for Solar Flare Prediction <i>Gautam Varma Datla, Haodi Jiang and Jason T. L. Wang</i>• A Novel Label Selection Algorithm Based on Principal Component Analysis and Sparse Approximation Solution for Multi-label Classification <i>Tao Peng, Yuling Xue, Jun Li and Jianhua Xu</i>• Disjointness axioms between top-level ontology concepts as a heuristic for word similarity evaluation <i>Alcides Lopes, Joel Carbonera and Mara Abel</i>• Enhancing Automatic Speech Recognition Quality with a Second-Stage Speech Enhancement Generative Adversarial Network <i>Soha A. Nossier, Julie Wall, Mansour Moniri, Cornelius Glackin and Nigel Cannings</i>• A Deep Learning Speech Enhancement Architecture Optimised for Speech Recognition and Hearing Aids <i>Soha A. Nossier, Julie Wall, Mansour Moniri, Cornelius Glackin and Nigel Cannings</i>

15:30 - 16:00 COFFEE BREAK

16:00 - 18:00 Sessions	Track-1	Track-2	Track-3
	MACHINE LEARNING II	DEEP NETWORKS AND NL PROCESSING	CLASSIFICATION METHODS II
	<ul style="list-style-type: none"> Learning Complicated Navigation Skills from Limited Experience via Augmenting Offline Datasets <i>Zhiqiang Wang, Yu'An Chen and Jianmin Ji</i> SCD: Sampling-based Class Distribution for Imbalanced Semi-Supervised Learning <i>Haomiao Qiu, Haixing Liu and Chi Zhang</i> bt-vMF Contrastive and Collaborative Learning for Long-Tailed Visual Recognition <i>Jinhao Du, Guibo Luo, Yuesheng Zhu and Zhiqiang Bai</i> Graph Active Learning at Subgraph Granularity <i>Yunqi Cao, Ziming Wang and Haopeng Chen</i> Destruction-Restoration Suppresses Data Protection Perturbations against Diffusion Models <i>Tianrui Qin, Xitong Gao, Juanjuan Zhao and Kejiang Ye</i> Early Risk Prediction of Depression Based on Social Media Posts in Arabic <i>Kefaya Sabaneh, Momen Abu Salameh, Fatima Khaleel, Mohammad Herzallah, Joman Natsheh and Mohammed Maree</i> UDA-HOID: Unsupervised Domain Adaptation for Human-Object Interaction Detection <i>Miao Jiang, Weiqing Huang, Min Li, Bo Meng, Junxing Ren, Ruwen Bai and Yang Yang</i> Rotation-Invariant Descriptors Learned With Circulant Convolution Neural Networks <i>Wenwei Lin, Chonghao Zhong, Xunpei Sun, Haitao Meng, Gang Chen, Biao Hu and Zonghua Gu</i> 	<ul style="list-style-type: none"> PGN: A perturbation generation network against deep reinforcement learning <i>Xiangjuan Li, Feifan Li, Yang Li and Quan Pan</i> Offline Reinforcement Learning Via Optimal Transport And Improved Performance Difference Theorem <i>Boyi Wang, Kai Lin and Guohan Sun</i> Boosting the Adversarial Transferability of Surrogate Models with Dark Knowledge <i>Dingcheng Yang, Zihao Xiao and Wenjian Yu</i> Deep Interaction Behavioral Feature Network for Click-Through Rate Prediction <i>Wenxi Zhang, Peilin Yang, Wenguang Zheng and Yingyuan Xiao</i> AOSR-Net: All-in-One Sandstorm Removal Network <i>Yazhong Si, Xulong Zhang, Fan Yang, Jianzong Wang, Ning Cheng and Jing Xiao</i> ECIFF: Event Causality Identification based on Feature Fusion <i>Silong Ding, Yingchi Mao, Yong Cheng, Tianfu Pang, Lijuan Shen and Rongzhi Qi</i> Improving Online POMDP Planning Algorithms with Decaying Q Value <i>Qingya Wang, Feng Liu, Xuan Wang and Bin Luo</i> What Really Matters for Graph Contrastive Learning-based Recommendations? A Unified Learning Strategy <i>Hongwei Zhou, Min Gao, Zongwei Wang, Linxin Guo, Yinghui Tao and Wentao Li</i> 	<ul style="list-style-type: none"> Cross-Architecture Relational Consistency for Point Cloud Self-Supervised Learning <i>Hongyu Li, Yifei Zhang and Dongbao Yang</i> ShapeEvoNet: A shapelet-based Time Series Classification Method <i>Zhiyuan Zhang and Xuehu Huang</i> A reinforcement learning-based weight fusion algorithm for house price prediction <i>Yige Zhang, Zongwen Fan and Jin Gou</i> OdinDTA: Combining Mutual Attention and Pre-training for Drug-target Affinity Prediction <i>Shuting Xu and Ruochen Wang</i> doublePT: Enhancing Meta-Learning Performance with Pre-Train and Meta-Pre-Train Processes <i>Lu Wang and K. L. Eddie Law</i> A Constraint Programming Model for Scheduling the Unloading of Trains in Ports <i>Guillaume Perez, Gael Glorian, Wijnand Suijlen and Arnaud Lallouet</i> MedCT-BERT: Multimodal Mortality Prediction using Medical ConvTransformer-BERT Model <i>Ke Zhang, Ke Niu, Zhongmin Guo, Yuhang Zhou and Guoqiang Lu</i> Dynamic Job Shop Scheduling via Deep Reinforcement Learning <i>Xinjie Liang, Wen Song and Pengfei Wei</i>
19:00 – 19:30	KEYNOTE SPEECH: <i>The Bounds and Boundaries of AI</i> Dan Koller (chair <i>Ming Yang</i>)		
19:00 – 21:00	SOCIAL DINNER AND BEST PAPER AWARDS		

Day-3: Wednesday, Nov. 8, 2023

08:00 - REGISTRATION

08:30 - 09:30 **KEYNOTE SPEECH:** *How AI Is and Is Not Transforming Health and Medicine" work?*
Dr. Wendy Nilsen (Chair Gennaro Cordasco)

09:30 - 10:00 **COFFEE BREAK**

10:00 - 12:00 Sessions	Track-1	Track-2	Track-3
	AI TOOLS AND MODELS IV	NL PROCESSING III	NEURAL NETWORKS III
	<ul style="list-style-type: none"> Modeling and Control of General Hydraulic Excavator for Human-in-the-loop Automation <i>Guangda Chen, Yinghao Gan, Jiayi Chen, Shuanwu Shi, Wei Chen, Yingfeng Chen, Rong Xiong and Changjie Fan</i> Controllable Diffusion Models for Safety-Critical Driving Scenario Generation <i>Zipeng Guo, Yuezhao Yu and Chao Gou</i> GEDl: A Graph-based End-to-end Data Imputation Framework <i>Katrina Chen, Xiuqin Liang, Zheng Ma and Zhibin Zhang</i> Window Attention with Multiple Patterns for Single Image Super-Resolution <i>Xianwei Xiao and Baojiang Zhong</i> Model-based exploration strategy to accelerate deterministic strategy algorithm training <i>Xiaotong Zhao, Jingli Du and Zhihan Wang</i> Guided Hierarchical Reinforcement Learning for Safe Urban Driving <i>Mohamad Albilani and Amel Bouzeghoub</i> Domain Adaptation in Machine Learning: A Practical Simulation Study <i>Ahmad Chaddad and Yihang Wu</i> LocoMixer: A Local Context MLP-Like Architecture For Image Classification <i>Mingjun Yin, Zhiyong Chang and Yan Wang</i> Generation of Rule-Based Expert Systems with Certainty Factors from Datasets <i>Konstantinos Kovas and Ioannis Hatzilygeroudis</i> 	<ul style="list-style-type: none"> A cross-attention and Siamese network based model for off-topic detection <i>Fan Cong, Guo Shen, Aishan Wumaier and Liu Jiajun</i> Aligning Speakers: Evaluating and Visualizing Text-based Speaker Diarization Using Efficient Multiple Sequence Alignment <i>Chen Gong, Peilin Wu and Jinho D. Choi</i> An Unsupervised Vision-related Keywords Retrieval and Fusion Method for Visual Storytelling <i>Bing Li, Can Ma, Xiyao Gao and Guangheng Jia</i> Which Words Pillar the Semantic Expression of a Sentence? <i>Cheng Zhang, Jingxu Cao, Dongmei Yan, Dawei Song and Jinxin Lv</i> Recent Progress on Named Entity Recognition Based on Pre-trained Language Models <i>Binxia Yang and Xudong Luo</i> Modeling Intra- and Inter-Modal Alignment with Optimal Transport for Visual Dialog <i>Renjie Zheng, Qin Chen, Jie Zhou, Junfeng Tian and Liang He</i> Investigating the Effectiveness of Whitening Post-processing Methods on Modifying LLMs Representations <i>Ziyuan Wang and You Wu</i> 	<ul style="list-style-type: none"> Vision Transformer with Interactive Windows based on Patch Sequence Reconstruction <i>Xia Yuantian, Kou Xupeng, Lu Shuhan, Wang Longhe and Li Lin</i> Image super resolution via multi-regularization combining hybrid Tikhonov-TV prior and deep denoiser prior <i>Jiahao Zhang, Shengrong Zhao, Hu Liang, Changchun Wen and Chen Liang</i> RC R-CNN for Bone Marrow Cell Recognition <i>Hua Yuan, Jian Luo and Shoubin Dong</i> MC-Net: Multi-Scale Feature Fusion and Cross-Level Information Interaction Network for Traffic Sign Detection <i>Zhongyi Yu, Shichao Zhang, Debo Cheng, Wenzhen Zhang and Jing Chen</i> Abnormal Behavior Detection Method based on Spatio-temporal Dual-flow Network for Surveillance Videos <i>Xingquan Cai, Yijie Wu, Haiyan Sun, Haoyu Zhang and Yao Liu</i> Node Classification in Graph Neural Networks under Dual Consistency <i>Qiyu Li, Xianxian Li, De Li and Jinyan Wang</i> Script Event Prediction Based on Causal Generalization Learning <i>Tianfu Pang, Yingchi Mao, Silong Ding, Biao Wang and Rongzhi Qi</i> Adaptive Hybrid Vision Transformer for Small Datasets <i>Mingjun Yin, Zhiyong Chang and Yan Wang</i>

12:00 - 13:30 LUNCH

13:30 - 15:30 Sessions

Track-1	Track-2	Track-3
NL PROCESSING IV	AGENTS	DETECTION II
<ul style="list-style-type: none">• Watch the Speakers: A Hybrid Continuous Attribution Network for Emotion Recognition in Conversation with Emotion Disentanglement <i>Shanglin Lei, Xiaoping Wang, Guanting Dong, Jiang Li and Yingjian Liu</i>• A Legal News Summarisation Model Based on RoBERTa, T5 and Dilated Gated CNN <i>Weijian Qin and Xudong Luo</i>• Zero-shot Bilingual App Reviews Mining with Large Language Models <i>Jialiang Wei, Anne-Lise Courbis, Thomas Lambolais, Binbin Xu, Pierre Louis Bernard and Gerard Dray</i>• FastGraphTTS: An Ultrafast Syntax-Aware Speech Synthesis Framework <i>Jianzong Wang, Xulong Zhang, Aolan Sun, Ning Cheng and Jing Xiao</i>• Contrastive Latent Space Reconstruction Learning for Audio-Text Retrieval <i>Kaiyi Luo, Xulong Zhang, Jianzong Wang, Huaxiong Li, Ning Cheng and Jing Xiao</i>• Multi-Modal Sarcasm Detection Based on Cross-Modal Composition of Inscribed Entity Relations <i>Jin Di, Li Lingshan, Wang Xiaobao, Guo Fengyu, Wang Longbiao and Dang Jianwu</i>• A Numeral and Affective Knowledge Enhanced Network for Aspect-based Financial Sentiment Analysis <i>Chuan Qin, Changrui Yu, Yuan Meng and Jun Chang</i>• Efficient Constraint Learning For Stream Reasoning <i>Mourad Hassani and Amel Bouzeghoub</i>	<ul style="list-style-type: none">• HCTA: Hierarchical Cooperative Task Allocation in Multi-Agent Reinforcement Learning <i>Mengke Wang, Shaorong Xie, Xiangfeng Luo, Yang Li, Han Zhang and Hang Yu</i>• A Spatio-temporal Adaptive Personalized Meta-recommender for Next Location <i>Jie Chen, Tong Liu, Yanmin Zhu, Ruiyuan Li and Xiaoqiang Li</i>• HSGCL-DTA: Hybrid-scale Graph Contrastive Learning based Drug-Target Binding Affinity Prediction <i>Hongyan Ye, Yingying Song, Binyu Wang, Lianlian Wu, Song He, Xiaochen Bo and Zhongnan Zhang</i>• Smaller and more Accurate Swin-transformer Model Prediction for Tracking <i>Fei Pan, Lianyu Zhao and Chenglin Wang</i>• Efficient HTN to STRIPS Encodings for Concurrent Planning <i>Nicolas Cavrel, Damien Pellier and Humbert Fiorino</i>• CSTCN: A Novel Causal-Based Framework for Air Quality Medium- and Long-term Prediction <i>Ruihao Cao, Jie Liu and Zhirou Ma</i>• WE-BTR: A Behavior Tree Recommendation Method Based on Word Embedding <i>Hang Su, Fu Li, Xueying Wang, Jinghua Li, Yunlong Wu and Yanzhen Wang</i>• ChatGPT: More Human-Like Than Computer-Like, but Not Necessarily in a Good Way <i>Amos Azaria</i>	<ul style="list-style-type: none">• A Dual Relation Extractor for Object Detection <i>Yang Zhang, Hao Bai, Yuan Xu, Qunxiong Zhu and Hao Sheng</i>• Few-shot Object Detection with Refined Contrastive Learning <i>Zeyu Shangguan, Lian Huai, Tong Liu and Xingqun Jiang</i>• Lragad: Local Information Recognition for Attribute Graph Anomaly Detection <i>Penghui Xi, Shichao Zhang, Debo Cheng, Zhenyun Deng and Guixian Zhang</i>• Behavior detection Algorithm of Caged White-feather broiler based on multi-scale detail feature fusion and object relation inference <i>Xia Yuantian, Xue Hongcheng, Lu Shuhan, Wang Longhe and Li Lin</i>• Multispectral Image Demosaicking Based on Multi-scale Dense Connections and Large-kernel Attention <i>Shufang Yu, Beibei Song, Wenwang Du, Jieran Yuan and Wenfang Sun</i>• TSFRN: Integrated Time and Spatial-Frequency domain based on Triple-links Residual Network for Sales Forecasting <i>Yi Xiang, Haoran Sun, Wenting Tu and Zejin Tian</i>• Scene Retrieval in Traffic Videos with Contrastive Multimodal Learning <i>Touseef Sadiq and Christian W. Omlin</i>• TDCGL: Two-Level Debiased Contrastive Graph Learning for Recommendation <i>Yubo Gao and Haotian Wu</i>• DGSNet: Dual Graph Structure Network for Emotion Recognition in Multimodal Conversations <i>Shimin Tang, Changjian Wang, Fengyu Tian, Kele Xu and Minpeng Xu</i>

15:30 - 16:00 CLOSING