

# ICTAI-2024 Program

**DAY-1- OPENING: Professor M. Koubarakis, General Chair – 8:00-8:30am Monday Oct.28, 2024**

**8:30am-9:30am: Keynote Speaker: Professor Jean-Luc Gaudiot, University of California Irvine, USA**  
*“Enhancing computer security with hardware-level malware detection”*

<p style="text-align: center;"><b>AI FOUNDATIONS - 1</b></p> <p>Session Coordinator: <b>Markus Hecher</b></p> <p><b>Presentations: 9:30am-11:30am</b></p> <p><b>46-</b> On Weighted Maximum Model Counting: Complexity and Fragments, <i>M. Bannach and M. Hecher</i></p> <p><b>74-</b> Lazy ad hoc Explanations for the Sum Constraint, <i>S.Sekar, G.Glolean, W.Suijlen, E.Monfroy and A. Lallouet</i></p> <p><b>94-</b> Generative Constraint Programming revisited, <i>F. Regin and E. DeMaria</i></p> <p><b>121-</b> Forgetting in Counting and Bounded Treewidth, <i>J. Fichte and M. Hecher</i></p> <p><b>141-</b> IndiCon: Selecting SAT Encodings for Individual Pseudo-Boolean and Linear Integer Constraints, <i>F.Ulrich-Oltean, P. Nightingale, and J.A.Walker</i></p> <p><b>171-</b> Parameterized Treewidth for Constraint Modeling Languages, <i>J. Pearson</i></p> <p><b>320 -</b> Partitioned Linear Orders and Belief Revision, <i>J�rome Gaigne, Khaled Belahcene and Sylvain Lagrue</i></p>	<p style="text-align: center;"><b>SCHEDULING-PLANNING-SOLVING-1</b></p> <p>Session Coordinator: <b>Sven Hallerbach:</b></p> <p><b>Presentations: 9:30am-11:30am</b></p> <p><b>28-</b> Advancing the AI-Based Realization of ACAS X Towards Real-World Application <i>Johann M. Christensen, Akshay A. Girija, Thomas Stefani, Umut Durak, Elena Hoemann, Frank K�ster, Thomas Kr�ger and Sven Hallerbach</i></p> <p><b>51-</b> Comparing diverse planning strategies with continuous Monte Carlo Tree Search applied to hybrid Gene Regulatory Networks <i>Romain Michelucci, Jean-Paul Comet and Denis Pallez</i></p> <p><b>58</b> Extending Hierarchical Partial-Order Causal-Link Planning to Temporal Problem Solving, <i>Nicolas Cavrel, Humbert Fiorino and Damien Pellier</i></p> <p><b>82-</b> Synergizing Evolutionary Task Allocation with Learning-Driven Path Planning, <i>Yu Yilan, Qiu Jiang and Li Wei</i></p> <p><b>157-</b> Cross-Paradigm Modelling: A Study of Puzznic, <i>Joan E Arxer, Ian Gent, Ian Miguel, Peter Nightingale, Andr�s Z. Salamon and Mateu Villaret.</i></p> <p><b>174-</b> Vehicle Energy Consumption Prediction under Real-World Driving Conditions., <i>Binaya Sharma, Sayda Elmi and Kian Lee Tan</i></p>	<p style="text-align: center;"><b>HIGH SCHOOL TUTORIAL : AI EVOLUTION &amp; CHALLENGES</b></p> <p>Session Coordinator: <b>N. Bourbakis</b></p> <p><b>Presentations: 10:00 am -- 11:30am</b></p> <p style="text-align: center;"><b>SPEAKERS</b></p> <p><i>Professor N. Bourbakis</i>  <b>“The sides of Artificial Intelligence (AI)”</b></p> <p><i>Professor M. Virvou</i>  <b>“Large Language Models”</b></p> <p><i>Professor M. Koubarakis</i>  <b>“AI and the future of work”</b></p> <p><i>Professor G. Tsihrintzis</i>  <b>“AI-Empowered Decision Support Systems”</b></p>
--	---	--

**Lunch Break: 11:30am – 13:00pm**

**DAY-1: MAIN PROGRAM - Monday Oct. 28, 2024**

**CLASSIFICATION-SENTIMENT-SEMANTIC**

Session Coordinator: **Taghi Khoshgoftaar**

**Presentations: 13:00pm-15:00pm**

**50-** SITH: Semantic Interpreter for Transformer Hierarchy, *Cheng Zhang, Jinxin Lv, Jingxu Cao, Jiachuan Sheng, Dawei Song and Tiancheng Zhang*

**91-** PatentALL: Multi-label Patent Classification using Adaptive Label Learning, *Yifan Qiang, Gaojie Sun and Hui Liu*

**99-** Job runtime prediction: a two-stage framework beyond PQR2 with fallback and enhanced classification, *Rémi Lacaze-Labadie*.

**116-** Comparing Human and BERT-Siamese Network (BertSNN) in Product Domain Similarity Ranking for Cross-Domain Sentiment Analysis, *Haitao Zhao and Jasy Suet Yan Liew*

**117-** Explainable Object Classification: Integrating Object Parts/Attributes and Expertise, *Jan Stodt, Christoph Reich, Martin Knahl and Nathan Clarke*.

**145-** A Comparison of Low-Shot Learning Methods for Imbalanced Binary Classification, *Preston Billion Polak and Taghi Khoshgoftaar*.

**RECOMMENDATION SYSTEMS**

Session Coordinator: **Emmanuel Viennet**

**Presentations: 13:00pm-15:00pm**

**37-** Modeling Long & Short-term Interests and Assigning Sample Weight for Multi-behavior Sequential Recommendation, *Tianyang Li, Hongbin Yan and Hanwen Xu*

**113-** Biterm Tensor Topic Model for Short Reviews in Recommender System, *Chengcheng Hao, Hui Liu, Wenping Shi and Shaoyun Zhang*

**162-** Machine Learning Based Recommendation Queries For Constraint Acquisition, *Hamza Islah and Younes Mechqrane*

**316-** LSMRec: Leveraging Hash-Enhanced Semantic Mapping for Superior Sequential Recommendations, *Haoyu Zhang and Wenfang Li*

**388-** Power of Suggestion: Strategic Feature Manipulation in Transformer-Based Models, *Issam Benamara and Emmanuel Viennet*.

**375-** An Ontology for Conversations with Virtual Research Assistants, *Anmol Saini, Jeffrey Ethier and Cogan Shimizu*

**MACHINE LEARNING - 1**

Session Coordinator: **M. Alexiou**

**Presentations: 13:00pm-15:00pm**

**32-** SUDS: a new Strategy for Unsupervised Drift Sampling, *Christofer Fellicious, Lorenz Wendlinger, Mario Lopez Gancarski, Jelena Mitrović and Michael Granitzer*

**34-** Accelerating prototype selection with spatial abstraction, *Joel Luis Carbonera*.

**62-** Physics-informed Machine Learning for Better Understanding Laser-Matter Interaction, *Fayad Ali Banna, Jean-Philippe Colombier, Rémi Emonet and Marc Sebban*

**64-** Continual Learning of 3D Point Cloud with Hyperbolic Manifold Replay, *Jin Yu, Zihao Xu, Zhengyu Li, Mingsong Chen, Xuan Tang and Xian Wei*.

**233-** Toward Predictive Stock Trading with Hidformer Integrated into Reinforcement Learning Strategy *Kamil Ł. Szydłowski and Jarosław A. Chudziak*

**392-** Unsupervised Learning and Effective Complexity: introducing JPG and Neural Sophistication, *Erick Gomez, Rémi Emonet and Marc Sebban*

**Break: 15:00pm – 15:30pm**

**DAY-1: MAIN PROGRAM – Monday Oct. 28, 2024**

KNOWLEDGE GRAPHS -1	ANOMALY DETECTION-1	NEURAL NETS -1
<p>Session Coordinator: <b>Taghi Khoshgoftaar</b>  <b>Presentations: 15:30pm-17:30pm</b></p> <p><b>111-</b> Adversarial Regularized Graph Embedding for User Identity Linkage across Social Networks, <a href="#">Xiaoyu Guo</a>, <a href="#">Yan Liu</a> and <a href="#">Fenlin Liu</a>.</p> <p><b>131-</b> Confident Labels: A Novel Approach to New Class Labeling and Evaluation on Highly Imbalanced Data, <a href="#">Mary Anne Walaukis</a> and <a href="#">Taghi Khoshgoftaar</a>.</p> <p><b>183-</b> Quadratic Assignment Contrastive Loss and Application on Graph Matching <a href="#">Xiangsheng Shi</a> and <a href="#">Zhipeng Jiang</a></p> <p><b>214-</b> Multi-Level Graph Convolutional Network for Document Information Extraction, <a href="#">Li-Ang Zhang</a>, <a href="#">Peng Guo</a>, <a href="#">Lin Dong</a>, <a href="#">Fangfang Yuan</a>, <a href="#">Dakui Wang</a>, <a href="#">Cong Cao</a> and <a href="#">Yanbing Liu</a>.</p> <p><b>223-</b> Enhancing Medicare Fraud Detection: Random Undersampling Followed by SHAP-Driven Feature Selection with Big Data, <a href="#">Qianxin Liang</a>, <a href="#">Richard Bauder</a> and <a href="#">Taghi Khoshgoftaar</a></p> <p><b>307-</b> CSFI for Social Media: Understanding and Predicting Cross-Community Information Propagation, <a href="#">Yuhang Wang</a>, <a href="#">Wei Zhou</a>, <a href="#">Ziang Hu</a>, <a href="#">Jizhong Han</a> and <a href="#">Tao Guo</a></p>	<p>Session Coordinator: <b>Jophin John</b>  <b>Presentations: 15:30pm-17:30pm</b></p> <p><b>45-</b> Multi-type Vulnerability Detection with Staged Feature Fusion and Group Data Balance, <a href="#">Boyang Zheng</a>, <a href="#">Yawen Wang</a>, <a href="#">Dongming Zhu</a> and <a href="#">Yunzhan Gong</a></p> <p><b>55-</b> Exploring the Suitability of the Cerebras Wafer Scale Engine for the Fast Prototyping of a Multilingual Hate Speech Detection System, <a href="#">Michael Hoffmann</a>, <a href="#">Jophin John</a> and <a href="#">Nicolay Hammer</a></p> <p><b>189-</b> MN-Net: Multi-Scale Feature Fusion and Neighborhood Attention Self-Supervised Network for Industrial Spool Surface Anomaly Detection, <a href="#">Yuming Su</a>, <a href="#">Dongming Tang</a>, <a href="#">Lijun Yang</a>, <a href="#">Yuxing Liu</a> and <a href="#">Chao Yang</a>.</p> <p><b>212-</b> Fuzzy-Empowered Decision Making Integrated with DDDAS-Matrix Profile Framework for Anomaly Detection in Radiation Measurements, <a href="#">Miltos Alamaniotis</a>.</p> <p><b>218-</b> Problematic News Topic Spreader Prediction via Uncertainty-based Contrastive Learning for Temporal Point Processes, <a href="#">Haoran Chen</a> and <a href="#">Dongmei Han</a>.</p> <p><b>364 -</b> A Legal Judgment Prediction Model Based on BERT, Attention, and Graph Convolutional Network, <a href="#">Binxia Yang</a>, <a href="#">Guibin Chen</a> and <a href="#">Xudong Luo</a></p>	<p>Session Coordinator: <b>Frederick Cottle</b>  <b>Presentations: 15:30pm-17:30pm</b></p> <p><b>88-</b> Enhanced Multimodal Sentiment Analysis via Tensor Decomposition and Hypergraph Convolutional Networks, <a href="#">Xinyin Zhang</a>, <a href="#">Yonghua Zhao</a>, <a href="#">Yang Liu</a> and <a href="#">Dingye Zhang</a></p> <p><b>137-</b> Where to go Next ? Social and Spatio-Temporal Learning for Next Points-of-Interest Prediction using Residual Vision Transformer, <a href="#">Sayda Elmi</a> and <a href="#">Sai Karthik Navuluru</a></p> <p><b>139-</b> AGFA-Net: Attention-Guided Feature-Aggregated Network for Coronary Artery Segmentation using Computed Tomography Angiography, <a href="#">Xinyun Liu</a>, <a href="#">Pengcheng Xiao</a>, <a href="#">Michele Esposito</a>, <a href="#">Manohar Raavi</a> and <a href="#">Chen Zhao</a>.</p> <p><b>164-</b> Near-Linear Time Projection onto the <math>\ell_{1,\infty}</math> Ball; Application to Sparse Neural networks, <a href="#">Guillaume Perez</a>, <a href="#">Laurent Condat</a> and <a href="#">Michel Barlaud</a></p> <p><b>267-</b> Contrastive Point Cloud Pretraining for Enhanced Transformers, <a href="#">Divyashree S. Koti</a>, <a href="#">Joshua Phillips</a> &amp; <a href="#">Frederick Cottle</a></p> <p><b>311-</b> Multi-Task Learning of Visual Attributes for Image Aesthetics Assessment, <a href="#">Ting Yu</a></p>

**END DAY-1**

DAY—2: MAIN PROGRAM - Tuesday Oct. 29, 2024

8:30am-9:30am : **Keynote Speaker: Professor Maria Virvou**, University of Piraeus, GR  
“Large Language Models and Trust in AI: Critical Challenges and Solutions ”

**AI FOUNDATIONS - 2**

Session Coordinator: **Chiaki Sakama**

**Presentations: 9:30am – 11:30am**

**209-** Linear Algebraic Partial Evaluation of Logic Programs, *Tuan Nguyen, Katsumi Inoue and Chiaki Sakama.*

**257-** Optimizing Power Peaks in Simple Assembly Line Balancing through Maximum Satisfiability, *Zhifei Zheng, Sami Cherif and Rui Shibasaki.*

**272-** The Power of Collaboration: Learning Large Bayesian Networks at Scale, *Vaidyanathan Peruvemba Ramaswamy, Stefan Szeider and Hai Xia*

**334-** Introducing Constraint Well-Founded Semantics for Constraint Logic Programming through Rewriting Transformations, *Bryan Garreau, Martin Diéguez, Eric Monfroy and Igor Stéphan.*

**349-** Virtual Network Embedding as Boolean Satisfiability, *Pavel Surynek, Yi Zheng, Erik Kline, Sven Koenig and T. K. Satish Kumar*

**354-** Counterfactual Explanation through Constraint Relaxation, *Sharmi Dev Gupta, Barry O'Sullivan and Luis Quesada*

**278-** Fast Evasion Detection & Alert Management in Tree-Ensemble-Based Intrusion Detection Systems, *Valency Oscar Colaco and Simin Nadjm-Tehrani*

**SCHEDULING-PLANNING-SOLVING-2**

Session Coordinator: **M. Alamaniotis**

**Presentations: 9:30am – 11:30am**

**290-** A User Study on Contrastive Explanations for Multi-Effector Temporal Planning with Non-Stationary Costs, *Xiaowei Liu, Kevin McAreavey and Weiru Liu.*

**362-** Benchmarking Autonomous Driving Systems using a Modular and Scalable Simulation Environment, *Dávid Szilágyi, Kuderna-Julian Benja and Christian Săcărea*

**370-** Association of Multi-sensor Data for Autonomous Car Driving: A Comparative Evaluation, *E. Ghiasi, G. Ghajari, M. Gottipati, P.S.S. Gogineni, R. Galla, and N. Bourbakis*

**371-** Planning With Incomplete Knowledge and Uncertain Goals: A Comparative Evaluation, *H C. Nagalla, R.V.Nagireddypalli, S. B. Naidu, N. G. Nalamasa, K. P. Nalla and N. Bourbakis*

**372-** Explainable AI Assisted Evolutionary Search of Engineering Designs, *Rahul Dubey.*

**402-** Intelligent Scheduling of Floating Nuclear Reactor Operation for Implementation of Distributed Smart Energy Systems in Remote Coastal Locations, *Miltos Alamaniotis*

**LARGE LANGUAGE MODELS**

Session Coordinator: **G. Tsihrintzis**

**Presentations: 9:30am – 11:30am**

**87-** Memory and Schema in Human-Generative Artificial Intelligence Interactions, *D. Panagoulas, P. Papatheodosiou, A. Bonakis, D. Dikeos, M. Virvou and G.A. Tsihrintzis.*

**219-** Weakly Supervised Video Anomaly Detection with Large Language Models Knowledge Enhancement Framework *Sicong Zhan, Jia Wang and Dandan Zhang.*

**228-** ESC-CoT: Easy-to-Hard Self-Comparative Chain-of-Thought for News Discourse Profiling, *Rong Zhu, Jingyuan Huang, Zejiang He, Menglong Lu, Zhen Huang, Jinhui Zhao and Yan Cao.*

**286-** KB2Bench: Toward a Benchmark framework for Large Language Models on Medical Knowledge, *Douglas Adjei-Fremphah, Lisa Chen and Paea LePendu*

**313-** An Evaluation of Large Language Models for Geological Named Entity Recognition, *Rafael Oleques Nunes, Andre Suslik Spritzer, Dennis Giovanni Balreira, Carla Maria Dal Sasso Freitas and Joel Luís Carbonera*

**319-** LLMs for Sentiment Analysis in Tourism Reviews: A Resource-Efficient Approach, *Dario Guidotti, Laura Pandolfo and Luca Pulina*

**Lunch Break: 11:30am – 13:00pm**

**DAY-2: MAIN PROGRAM - Tuesday Oct. 29, 2024**

DEEP LEARNING	ANOMALY DETECTION-2	CVPR-1
<p>Session Chairs: <b>Jason T.L. Wang</b>  <b>Presentations: 13:00pm-15:00pm</b>  <b>33-</b> Interpretable Deep Learning for Solar Flare Prediction, <i>Vinay Ram Gazula, Katherine G. Herbert, Yasser Abdullallah and Jason T.L. Wang.</i></p> <p><b>76-</b> A systematic analysis of deep learning algorithms in high-dimensional data regimes of limited size, <i>Simon Jaxy, Pieter Libin and Ann Nowe.</i></p> <p><b>92-</b> Domain knowledge guided deep neural networks (DKG-DNN) for prediction of diaphragm wall deformation induced by excavation, <i>Huajing Zhao and Meng Wang</i></p> <p><b>165-</b> Remember Your Best: Improving Exploitation in Deep Q-Network, <i>Trupal Patel, Aasmaan Gupta and Raghuram Bharadwaj Diddigi</i></p> <p><b>203-</b> Phoneme Substitution: A Novel Approach for Backdoor Attacks on Speech Recognition Systems, <i>Xiong Bicheng and Wen Weiping</i></p> <p><b>239-</b> Predicting Protein-Protein Binding Affinity with Deep Learning: A Comparative Analysis of CNN and Transformer Models, <i>Lingtao Chen, Kazi Fahim Ahmad Nasif, Bobin Deng, Shuten Niu and Chloe Yixin Xie</i></p>	<p>Session Coordinator: <b>Guillaume Sagno</b>  <b>Presentations: 13:00pm-15:00pm</b>  <b>93-</b> Stable Discrete Segmented Reverse Diffusion Model for Solving Class Imbalance in Malicious Websites Detection, <i>Jiyang Shen, Tianlan Wei and Cong Cao</i></p> <p><b>275-</b> NNTailor:A Neural Network-Driven Fuzzer for DataBase Management Systems, <i>Shutao Chu, Yongjun Wang, Haoran Xu, Zhiyuan Jiang and Yongxin Chen</i></p> <p><b>324-</b> AgileAD: Anchor-Guided Contrastive Learning with a General Data Augmentation Strategy for Time Series Anomaly Detection, <i>Yulong Tian, Jiaxuan Xu, Jie Zuo and Lei Duan</i></p> <p><b>339-</b> TSFeatLIME: An Online User Study in Enhancing Explainability in Univariate Time Series Forecasting, <i>Hongnan Ma, Kevin McAreavey and Weiru Liu</i></p> <p><b>390-</b> Patch-aware Vector Quantized Codebook Learning for Unsupervised Visual Defect Detection, <i>Qisen Cheng, Shuhui Qu and Janghwan Lee</i></p> <p><b>394-</b> Evaluating the Potential of Reinforcement Learning for Stochastic Machine Scheduling Problems, <i>Mohammed Majthoub Almoghrabi and Guillaume Sagno</i></p>	<p>Session Coordinator: <b>M. Alexiou</b>  <b>Presentations: 13:00pm-15:00pm</b>  <b>54-</b> INRNet: Neighborhood Re-ranking Based Method for Pedestrian Text-Image Retrieval, <i>Kehao Wang, Yuhui Wang and Qifeng Li</i></p> <p><b>65-</b> Towards Releasing ViT from Pre-training, <i>Mario Haddad-Neto, André Silva, Rayol Mendonca-Neto, Moyses Mendes and Luiz Cordovil-Jr</i></p> <p><b>96-</b> 3D-PSH: Lightweight 3D LiDAR Object Detection Using Adaptive Clustering and 3D Point Spatial Histograms, <i>Junaid Baber and Olivier Aycard</i></p> <p><b>90-</b> Low-Density 3D Point Cloud Classification, <i>Ahmed Baha Ben Jmaa and Faten Chaieb</i></p> <p><b>181-</b> ICLD: An Instance Contrastive Learning Domain Adaptive SAR Object Detection Network <i>Shouhong Wan, Risheng Xie, Rui Wang, Hantao Zhang and Peiquan Jin</i></p> <p><b>185-</b> MDT-AF: Multi-dimension Transformer with Attention-based Filtering for Medical Image Segmentation, <i>Wentao Wang, Xi Xiao, Mingjie Liu, Qizhen Lan, Xuanyao Huang, Qing Tian, Swalpa Kumar Roy and Tianyang Wang</i></p>

**Break: 15:00 pm– 15:30pm**

**DAY-2: MAIN PROGRAM - Tuesday Oct. 29, 2024**

**KNOWLEDGE GRAPHS - 2**

Session Coordinator: **Vincent Derkinderen**

**Presentations: 15:30pm-17:30pm**

**248-** LRIRL: Improving Knowledge Graph Reasoning through Representation Learning-Based Rule Induction, *Yingjie Liu, Yingchi Mao, Fudong Chi, Bo Wu, Silong Ding and Rongzhi Qi*

**258-** KRLGI: Knowledge Representation Learning based on Global Information for Reasoning, *Bo Wu, Yingchi Mao, Fudong Chi, Yingjie Liu, Silong Ding and Rongzhi Qi*

**346-**LLM-Based Digital Twin Water Conservancy Knowledge Graph Construction, *Yan Yang, Feng Ye, Dong Xu, Jin Xu and Xuejie Zhang*

**365-** Pruning Boolean d-DNNF Circuits Through Tseitin-Awareness, *Vincent Derkinderen*

**361-** Fuzzy Concession Strategy for Emotional Human-Computer Negotiation *Xudong Luo, Ying Luo, Kaili Sun and Yanling Li*

**276-** Semi-Automatic Discovery of Dependency Relationships among Properties for Ranking-based Semantics, *Kengo Hayashi and Ryuta Arisaka*

**AGENTS**

Session Coordinator: **Bettina Fazzinga**

**Presentations: 15:30pm-17:30pm**

**29-** Autonomous Agents for Interrogation, *Merav Chkroun and Amos Azaria*

**191-** An Efficient Approach for Cooperative Multi-Agent Learning Problems, *Ángel Aso-Mollar and Eva Onaindia*

**260-** A Chatbot for Asylum-Seeking Migrants in Europe, *Bettina Fazzinga, Elena Palmieri, Margherita Vestoso, Luca Bolognini, Andrea Galassi, Filippo Furfaro and Paolo Torroni*

**285-** Multi-agent Path Finding in Continuous Environment, *Kristýna Janovská and Pavel Surynek*

**350-** Enhancing Multi-Agent Robustness: Addressing the Off-Diagonal Problem with Population-Based Training, *Petra Vysušilová, Přemysl Bašta and Martin Pilát*

**383-** Learning Reliable PDDL Models for Classical Planning from Visual Data, *Aymeric Barbin, Federico Cerutti and Alfonso Gerevini.*

**MACHINE LEARNING - 2**

Session Coordinator: **Santonu Sarkar**

**Presentations: 15:30pm-17:30pm**

**102-** A Machine Learning based tool to estimate coolant engine temperature based on motorcycle riding data, *Federico Pennino, David Attisano, Davide Sette and Maurizio Gabbrielli*

**103-** Estimating Power Consumption of GPU Application using Machine Learning Tool, *Gargi Alavani, Tanish Desai, Sharvil Potdar, Nayan Gogari, Snehanu Saha and Santonu Sarkar*

**132-** Subspace Rotation Algorithm for Training Restricted Hopfield Network *Ci Lin, Tet Yeap and Iluju Kiringa*

**202-** MDRPC: Music-Driven Robot Primitives Choreography, *Lihua Zhang, Peng Zhai, Haiyang Guan, Xiaoyi Wei, Weifan Long and Dingkan Yang*

**246-** InFusionLayer: a CFA-based ensemble tool to generate new classifiers for learning and modeling, *Eric Roginek, Jingyan Xu and D. Frank Hsu*

**GALA DINNER – 19:00pm – 21:00pm**

**END – DAY-2**



**DAY-3: MAIN PROGRAM Wednesday Oct. 30, 2024**

**8:30am-9:30am : Keynote Speaker: Professor Alex Brodsky, George Mason University, USA**  
**“Decision Guidance Management System (DGMS) and its Applications to Renewable Energy Investment, Markets of Virtual Things, Sensor Optimization and Pandemic Mitigation”**

**OPTIMIZATION - CLASSIFICATION**

Session Coordinator: **Emmanuelle Ménétrier**

**Presentations: 9:30am – 11:30am**

- 105-** Selecting Search Strategy in Constraint Solvers using Bayesian Optimization, *Hedieh Haddad, Pierre Talbot and Pascal Bouvry*
- 160-** SyREC: A Symbolic-Regression-Based Ensemble Combiner, *Kei Sen Fong and Mehul Motani*
- 210-** Renyi Entropy Search for Bayesian Optimization, *Maxime Macé, Tassadit Amghar, Paul Richard and Emmanuelle Ménétrier*
- 256-** Boosting Imperceptibility of Adversarial Attacks for Environmental Sound Classification *Shaojian Qiu, Xiaokang You, Wei Rong, Lifeng Huang and Yun Liang*
- 368-** Rule-based Constraint Elicitation For Active Constraint-Incremental Clustering, *Aymeric Beauchamp, Thi-Bich-Hanh Dao, Samir Loudni and Christel Vrain*
- 389-** Neural Tangent Bayesian Optimization for Accurate and Efficient Influence Maximization, *Zijian Zhang, Zonghan Zhang and Zhiqian Chen*

**NATURAL LANGUAGE–TEXT-IMAGE**

Session Coordinator: **Ouassila L. Narsis**

**Presentations: 9:30am – 11:30am**

- 136-** A Legal Multi-Choice Question Answering Model Based on DeBERTa and Attention Mechanism, *Ying Luo, Xudong Luo and Guibin Chen*
- 154-** Worldafford:Affordance Grounding based on Natural Language Instructions, *Changmao Chen, Yuren Cong and Zhen Kan*
- 198-** MBTSAD: Mitigating Backdoors in Language Models Based on Token Splitting and Attention Distillation, *Yidong Ding, Jiafei Niu and Ping Yi*
- 265-** Identifying Logical Patterns in Text for Reasoning, *Pauline Armary, El Vaigh C. Brahim, Antoine Spicher, Ouassila L. Narsis & C. Nicolle*
- 330-** ConsfomerST:Multilayer Transformer and Contrast Learning for Image Style Transfer, *Yuanfeng Zheng and Honggang Zhao*
- 332-** A DeBERTa-GPLinker-Based Model for Relations Extraction from Medical Texts, *Zhiqi Deng, Shutao Gong and Xudong Luo*

**MACHINE LEARNING -3**

Session Coordinator: **Barry O’Sullivan**

**Presentations: 9:30am – 11:30am**

- 163-** Investigating the Duality of Interpretability and Explainability in Machine Learning, *Moncef Garouani, Josiane Mothe, Ayah Barhrouj and Julien Aligon*
- 169-** Learning and Simulating Human Behaviour with Relational Decision Trees, *Stanislav Sitanskiy, Laura Sebastia and Eva Onaindia*
- 177-** Unnecessary Budget Reduction in Federated Active Learning, *Enzhi Zhang and Liu Yang*
- 326-** A Machine Learning Approach to Model Counting, *Marco Dalla, Andrea Visentin and Barry O’Sullivan*
- 333-** Efficient Compensation of Action for Reinforcement Learning Policies in Sim2Real, *Weitao Zhang, Shaorong Xie, Xiangfeng Luo, Wenwen Xiao and Tao Wang*
- 391-** On the Learning of Explainable Classification Rules through Disjunctive Patterns, *Amel Hidouri, Said Jabbour, Ahmed Samet and Badran Raddaou*

**Break: 11:30 am– 13:00pm**

**DAY-3: Main Program - Wednesday Oct. 30, 2024**

**AI - APPLICATIONS**

Session Coordinator:

**Euripides Petrakis & M.Alexiou**

**Presentations: 13:00pm-15:00pm**

**89-** Explaining Teleo-reactive Strategic Behaviour, *Nausheen Saba Shahid, Agnieszka Mensfelt and Kostas Stathis*

**172-** Revisiting Frequent (Closed) Gradual Itemsets Mining. *Jerry Lonlac, Bernoulli Fotsing Tchide, Alain Bomgni, Arnaud Doniec and Engelbert Mephu Nguifo*

**176-** A Robust Random Search Approach for Matching Formulas in Math Information Retrieval Systems, *Megan Shellman, Kate Hill and Yiu-Kai Ng*

**250-** An Integrated Framework for Device and Service Descriptions in the Web of Things, *Aimilios Tzavaras, Chrisa Tsinaraki and Euripides Petrakis*

**253-** An Improved Negative Selection Algorithm Based on a T Cell Multilayer Immune Tolerance Mechanism, *Lu Peng, Yiwon Liang and He Yang*

**242-** A Robust UAV Tracking Solution in the Adversarial Environment, *Mengjie Jia, Yanyan Li and Jiawei Yuan*

**401-** Recognizing Binary Code Semantics Towards Achieving Software Segmentation *M. Alexiou, Z.Ryu, G.Abawe, S.Mertoguno*

**MACHINE LEARNING - 4**

Session Coordinator: **Marco Battaglieri**

**Presentations: 13:00pm-15:00pm**

**292-** Unfolding Particle Detector Acceptance in High Energy Physics with Generative AI, *Tareq Alghamdi, Tommaso Vittorini, Marco Spreafico, Marco Battaglieri, Nobuo Sato and Yaohang Li*

**337-** Towards Designing an Energy-Efficient Accelerated Sparse Convolutional Neural Network, *Kshira Sahoo, Vijaypal Singh Rathor, Munesh Singh, Rahul Gupta, G. K. Sharma and Monowar Bhuyan*

**234-** Permutation Equivariant Deep Reinforcement Learning for Multi-Armed Bandit, *Zhuofan Xu, Benedikt Bollig, Matthias Függer and Thomas Nowak.*

**343-** Improved Pig Behavior Analysis Through Strategic Data Preprocessing Framework in Machine Learning, *Pranjal Ranjan, Sanjana Bharadwaj, Yingqi Pei, Kenan Burak Aydin, Dong Ha, Gota Morota and Sook Shin*

**358-** Detecting Environment Drift in Reinforcement Learning Using Gaussian Process, *Zhizhou Fang and Uwe Zdun*

**396-** Rapid Autonomy Transfer in Reinforcement Learning with a Single Pre-Trained Critic, *Muhammad Faraz Karim, Yunjie Deng, Luyao Niu, Bhaskar Ramasubramanian, Michail Alexiou, Dinuka Sahabandu, Radha Poovendran and Sukarno Mertoguno*

**CVPR- 2**

Session Coordinator: **Joel Carbonera**

**Presentations: 13:00pm-15:00pm**

**264-** HTPSeg: A Semantic Segmentation Database for House-Tree-Person Psychological Test, *Hao Wang, Jin Wang, Ting Pan, Bingfeng Zhang and Weifeng Liu*

**299-** Temporal Scene Understanding using Contextually Unique Identification, *Sanjiv Subodhnarayan Jha, Kimberly Garcia, Yasmine Sheila Antille, Marc Elias Solèr, Simon Padua and Simon Mayer*

**369-** Investigating performance patterns of pre-trained models for feature extraction in image classification, *Matheus V. Todescato and Joel L. Carbonera*

**381-** A Novel Multi-Pose Person Re-Identification Method Based on Semantic- and Pose-Guided Feature Fusion, *Yuefeng Ma, Deheng Liu, Zhiqi Cheng and Shijian Li*

**385-** Face Verification with Veridical and Caricatured Images using Prominent Attributes, *Jayam Sutariya, Emily Hand, Cooper Flourens and Nathan Thom*

**345-** Multi-Input Deep Learning Models for Weight Forecasting of Pigs Using Depth Images, *Pranjal Ranjan, Dong Ha, Gota Morota and Sook Shin*

**15:00 – 16:00pm : CLOSING REMARKS & ANNOUNCEMENTS**