

Programme

(Belfast time UTC+1)

Monday, 2 September 2024

8:30 – 9:15	On-site welcome desk open (at the Buliding BD entrance, the Belfast Campus at Ulster University)
9:15 – 9:30	Conference opening - Welcome by Professor Brain Meenan, Associate Dean (Research & Innovation) of Faculty of Computing, Engineering and the Built Environment at Ulster University
9:30 – 10:30	Keynote by Zhi-Hua Zhou A Preliminary Exploration to Learnware Chair: Yaxin Bi BA-01-009, Conor Lecture Theatre of the Building BA at Ulster University, York St, Belfast BT15
10:30–11:00	Coffee break, 10 minutes to transit from Building BA to BD
11:10–12:30	Session 1 - Machine Learning I - BD-01-016, Building BD at the Belfast Campus - Chair: Liping Liu
11:10–11:30	Deep evidential clustering of images Loïc Guiziou, Emmanuel Ramasso, Sébastien Thibaud, Sébastien Denneulin
11:30–11:50	Incremental Belief-peaks Evidential Clustering Chaoyu Gong, Sihan Wang, Zhi-gang Su
11:50–12:10	Imprecise Deep Networks for Uncertain Image Classification Zuwei Zhang, Chuanqi Liu, Zechao Liu, Liangbo Ning, Zhunga Liu
12:10–12:30	Dempster-Shafer Credal Probabilistic Circuits David Ricardo Montalvan Hernandez, Cassio de Campos, Thomas Krak
12:30–13:30	Lunch break
13:30–14:50	Session 2 - Machine Learning II - BD-01-016, Building BD at the Belfast Campus - Chair: Rui Wang
13:30–13:50	Uncertainty quantification in regression neural networks using likelihood-based belief functions Thierry Denœux
13:50–14:10	An evidential time-to-event prediction model based on Gaussian random fuzzy numbers Ling Huang, Yucheng Xing, Thierry Denœux, Mengling Feng

14:10–14:30	Object Hallucination Detection in Large Vision Language Models via Evidential Conflict Zhekun Liu, Tao Huang, Rui Wang, Liping Jing
14:30–14:50	Multi-oversampling with evidence fusion for imbalanced data classification Hongpeng Tian, Zuowei Zhang, Zhunga Liu
14:50–15:20	Coffee break
15:20–16:20	Session 3 - Machine Learning III - BD-01-016, Building BD at the Belfast Campus - Chair: Sébastien Ramel
15:20–15:40	An Evidence-based Framework For Heterogeneous Electronic Health Records: A Case Study In Mortality Prediction Yucheng Ruan, Ling Huang, Qianyi Xu, Mengling Feng
15:40–16:00	Conflict Management in a Distance to Prototype-Based Evidential Deep Learning Danut-Vasile V Giurgi, Mihreteab N Geletu, Thomas Josso-Laurain, Maxime Devanne, Jean-Phillippe Lauffenburger, Mengesha Mamo Wogari, Jean Dezert
16:00–16:20	A Novel Privacy Preserving Framework for Training Dempster Shafer Theory-based Evidential Deep Neural Network Tu Anh Tran, Nam Huynh, Viet-Hung Dang
16:20–18:00	BFAS general assembly (open to conference participants)
18:00–19:30	Welcome reception

Tuesday, 3 September 2024

9:30 –10:30	Keynote by Prakash Shenoy Knowing What You Don't Know: Making Inferences in Incomplete Bayesian Networks Chair: Thierry Denœux
10:30–11:00	Coffee break
11:00–12:40	Session 4 - Measures of uncertainty, conflict and distances - BD-01-016, Building BD at the Belfast Campus - Chair: Frédéric Pichon
11:00–11:20	A mean distance between elements of same class for richer labels Arthur Hoarau, Constance Thierry, Jean-Christophe Dubois, Yolande Le Gall
11:20–11:40	Threshold Functions and Operations in the Theory of Evidence Alexander Lepskiy
11:40–12:00	Mutual Information and Kullback-Leibler Divergence in the Dempster-Shafer Theory Prakash Shenoy

12:00–12:20	An OWA-based Distance Measure for Ordered Frames of Discernment Xiong Zhao, Liyao Ma, Yiyang Wang, Shuh uiBi
12:20–12:40	Automated hierarchical conflict reduction for crowdsourced annotation tasks using belief functions Constance Thierry, David Gross-Amblard, Yolande Le Gall, Jean-Christophe Dubois
12:40–13:40	Lunch break
13:40–15:20	Session 5 - Statistical Inference - BD-01-016, Building BD at the Belfast Campus - Chair: Jorge Martinez Carracedo
13:40–14:00	Large-sample theory for inferential models: a possibilistic Bernstein-von Mises theorem Ryan Martin, Jonathan P Williams
14:00–14:20	Variational approximations of possibilistic inferential models Leonardo Cella, Ryan Martin
14:20–14:40	Decision theory via model-free generalized fiducial inference Jonathan P Williams, Yang Liu
14:40–15:00	Which statistical hypotheses are afflicted with false confidence? Ryan Martin
15:00–15:20	Algebraic expression for the relative likelihood-based evidential prediction of an ordinal variable Frédéric Pichon, Sébastien Ramel
15:20–15:50	Coffee break
15:50–17:10	Session 6 - Continuous belief functions, logics, computation - BD-01-016, Building BD at the Belfast Campus - Chair: Ryan Martin
15:50–16:10	Gamma Belief Functions Liping Liu
16:10–16:30	Combination of Dependent Gaussian Random Fuzzy Numbers Thierry Denœux
16:30–16:50	A 3-valued Logical Foundation for Evidential Reasoning Chunlai Zhou
16:50–17:10	Accelerated Dempster Shafer using Tensor Train Representation Duc Truong, Erik Skau, Cassandra L Armstrong, Kari Sentz
17:20–18:00	Social event, Tour of the Belfast Campus
18:00–	Gala dinner at the Academy Restaurant, Belfast Campus of Ulster University

Wednesday, 4 September 2024

9:30 – 10:30	Keynote by Frédéric Pichon Reliability and dependence in information fusion Chair: Anne-Laure Jousselme
10:30–10:50	Coffee break
10:50–12:30	Session 7 - Information fusion and optimization - BD-01-016, Building BD at the Belfast Campus - Chair: Prakash Shenoy
10:50–11:10	Why Combining Belief Functions on Quantum Circuits? Qianli Zhou, Hao Luo, Eloi Bossé, Yong Deng
11:10–11:30	SHADED: Shapley Value-based Deceptive Evidence Detection in Belief Functions Haifei Zhang
11:30–11:50	A Novel Optimization-Based Combination Rule for Dempster-Shafer Theory Hasan Ihsan Turhan, Tugba Tanaydin
11:50–12:10	Fusing independent inferential models in a black-box manner Leonardo Cella
12:10–12:30	Optimization under Severe Uncertainty: a Generalized Minimax Regret Approach for Problems with Linear Objectives Tuan Anh Vu, Sohaib Afifi, Eric Lefèvre, Frédéric Pichon
12:30–13:20	Final remarks and lunch break, 10 minutes for transiting from Building BD to BA
13:30–15:30	Keynote by Robert Kozma Sustainable Artificial Intelligence BA-01-009, Conor Lecture Theatre of the Building BA at Ulster University, York St, Belfast BT15 1ED
15:30–15:50	Coffee break (with UKCI at Building BA)
15:50–	Conference closure

Instruction for oral presentation: Each presentation should last 20 minutes, including questions. The chairman is instructed to leave 15 minutes for the presentation itself and 5 minutes for questions/discussion. Presentations are oral only; no poster is required.