

**BELIEF 2014 – Third International Conference on Belief Functions,  
September 26-28 2014, Oxford, UK**

Friday, September 26<sup>th</sup>

8:15 – 8:45	Conference Registration
8:45 – 9:00	Opening Remarks
9:00 – 10:00	<p style="text-align: center;"><b>Invited Talk</b></p> <p style="text-align: center;"><b>Speaker:</b> Professor Nando de Freitas Oxford University</p> <p style="text-align: center;"><b>Title:</b> “<i>Deep Beliefs</i>”</p>
10:00 – 10:30	Coffee break
10:30 – 12:10	<p style="text-align: center;"><b>Belief Combination</b> - Chair: Olivier Colot</p> <p><i><math>\alpha</math>-junctions of Categorical Mass Functions</i> John Klein, Mehena Loudahi, Jean-Marc Vannobel and Olivier Colot</p> <p>Truthfulness in Contextual Information Correction Frédéric Pichon, David Mercier, François Delmotte, and Éric Lefèvre</p> <p><i>The Choice of Generalized Dempster-Shafer Rules for Aggregating Belief Functions Based on Imprecision Indices</i> Andrey G. Bronevich and Igor N. Rozenberg</p> <p><i>General Schemes of Combining Rules and the Quality Characteristics of Combining</i> Alexander Lepskiy</p> <p><i>An Optimal Unified Combination Rule</i> Yanyan He and M. Yousuff Hussaini</p>
12:10 – 13:30	Lunch
13:30 – 15:30	<p style="text-align: center;"><b>Machine Learning</b> - Chair: Sébastien Destercke</p> <p><i>Evidential Logistic Regression for Binary SVM Classifier Calibration</i> Philippe Xu, Franck Davoine, and Thierry Denœux</p> <p><i>The Evidence-theoretic k-NN Rule for Rank-ordered Data: Application to Predict an Individual's Source of Loan</i> Supanika Leurcharusmee, Peerapat Jatukannyaprateep, Songsak Sriboonchitta, and Thierry Denœux</p>

	<p><i>Belief Hierarchical Clustering</i> Wiem Maalel, Kuang Zhou, Arnaud Martin, and Zied Elouedi</p> <p><i>Logistic Regression of Soft Labeled Instances via the Evidential EM Algorithm</i> Benjamin Quost</p> <p><i>Training and Evaluating Classifiers from Evidential Data: Application to E2M Decision Tree Pruning</i> Nicolas Sutton-Charani, Sébastien Destercke, and Thierry Denœux</p> <p><i>Reflections on DS/AHP: Lessons to be learnt</i> Malcolm J. Beynon</p>
15:30 – 16:00	Coffee break
16:00 – 17:40	<p style="text-align: center;"><b>Applications 1</b> - Chair: David Mercier</p> <p><i>Evidential Database: A New Generalization of Databases?</i> Ahmed Samet, Eric Lefèvre, and Sadok Ben Yahia</p> <p><i>Belief Approach for Social Networks</i> Salma Ben Dhaou, Mouloud Kharoune, Arnaud Martin, and Boutheina Ben Yaghlane</p> <p><i>Methods Handling Accident and Traffic Jam Information with Belief Functions in VANETS</i> Mira Bou Farah, David Mercier, François Delmotte, Éric Lefèvre, and Sylvain Lagrue</p> <p><i>Designing a Belief Function-Based Accessibility Indicator to Improve Web Browsing for Disabled People</i> Jean-Christophe Dubois, Yolande Le Gall and Arnaud Martin</p> <p><i>Belief Reasoning Model for Mapping Public Participation in Transport Planning</i> Nopadon Kronprasert, and Antti P. Talvitie</p>
17:40 – 18:40	<b>BFAS General Meeting</b>
20:00 – 22:00	BFAS Board of Directors dinner

Saturday, September 27<sup>th</sup>

8:30 – 9:00	Conference Registration
9:00 – 10:00	<p style="text-align: center;"><b>Invited Talk</b></p> <p style="text-align: center;"><b>Speaker:</b> Professor Thomas Lukasiewicz Oxford University</p> <p style="text-align: center;"><b>Title:</b> “<i>Uncertainty in the Semantic Web</i>”</p>
10:00 – 10:30	Coffee break
10:30 – 12:10	<p style="text-align: center;"><b>Theory 1 - Chair: Johan Schubert</b></p> <p><i>Some Notes on Canonical Decomposition and Separability of a Belief function</i> Xiaolu Ke, Liyao Ma, and Yong Wang</p> <p><i>A Relational Representation of Belief Functions</i> Liping Liu</p> <p><i>Modeling Qualitative Assessments under the Belief Function Framework</i> Amel Ennaceur, Zied Elouedi, and Éric Lefèvre</p> <p><i>A Study on Generalising Bayesian Inference to Evidential Reasoning</i> Jian-Bo Yang and Dong-Ling Xu</p> <p><i>Partial Ranking by Incomplete Pairwise Comparisons using Preference Subsets</i> Johan Schubert</p>
12:10 – 13:30	Lunch
13:30 – 15:30	<p style="text-align: center;"><b>Applications 2 - Chair: Arnaud Martin</b></p> <p><i>Mathematical Theory of Evidence in Navigation</i> Włodzimierz Filipowicz</p> <p><i>Application of Belief Functions Theory to Non Destructive Testing of Industrial Pieces</i> Ahmad Osman, Valerie Kaftandjian, and Ulf Hassler</p> <p><i>Predicting Stock Returns in the Capital Asset Pricing Model Using Quantile Regression and Belief Functions</i> Kittawit Autchariyapanitkul, Somsak Chanaim, Songsak Sriboonchitta, and Thierry Denœux</p>

	<p><i>Evidential Object Recognition based on Information Gain Maximization</i> Thomas Reineking and Kerstin Schill</p> <p><i>Evidence-Based Modelling of Organizational Social Capital with Incomplete Data: An NCaRBS Analysis</i> Malcolm J. Beynon and Rhys Andrews</p> <p><i>Outliers in Evidential C-Means: An Empirical Exploration using Survey Data on Organizational Social Capital</i> Malcolm J. Beynon and Rhys Andrews</p>
15:30 – 16:00	Coffee break
16:00 – 17:40	<p style="text-align: center;"><b>Networks</b> - Chair: Prakash P. Shenoy</p> <p><i>Causal Compositional Models in Valuation-Based Systems</i> Radim Jiroušek and Prakash P. Shenoy</p> <p><i>Merging Possibilistic Networks through a Disjunctive Mode</i> Faiza Titouna and Salem Benferhat</p> <p><i>On the Estimation of Mass Functions Using Self Organizing Maps</i> Imen Hammami, Jean Dezert, Grégoire Mercier, and Atef Hamouda</p> <p><i>Second-order Belief Hidden Markov Models</i> Jungyeul Park, Mouna Chebbah, Siwar Jendoubi, and Arnaud Martin</p> <p><i>Learning Parameters in Directed Evidential Networks with Conditional Belief Functions</i> Narjes Ben Hariz and Boutheina Ben Yaghlane</p>
18:00 – 22:00	<p style="text-align: center;"><b>Conference Banquet/Award Ceremony</b></p> <p style="text-align: center;">St Hugh's college</p>

Sunday, September 28<sup>th</sup>

8:30 – 9:00	Conference Registration
9:00 – 10:20	<p style="text-align: center;"><b>Theory 2</b> - Chair: Thierry Denoeux</p> <p><i>Econometric Forecasting Using Linear Regression and Belief Functions</i> Orakanya Kanjanatarakul, Philai Lertpongpiroon, Sombat Singkharat, and Songsak Sriboonchitta</p> <p><i>Modelling and Fusion of Imperfect Implication Rules</i> Janith N. Heendeni, Kamal Premaratne, Manohar N. Murthi, and Matthias Scheutz</p> <p><i>Conflict between Belief Functions: a New Measure Based on their Non-Conflicting Parts</i> Milan Daniel</p> <p><i>On Marginal Problem in Evidence Theory</i> Jiřina Vejnarova</p>
10:20 – 10:50	Coffee break
10:50 – 12:10	<p style="text-align: center;"><b>Data Association</b> - Chair: Yaxin Bi</p> <p><i>On the Quality of Optimal Assignment for Data Association</i> Jean Dezert, and Kaouthar Benameur</p> <p><i>Data Association for Object Enumeration Using Belief Function Theory</i> Wafa Rekik, Sylvie Le Hegarat-Mascle, Cyrille Andre, Abdelaziz Kallel, Roger Reynaud, and Ahmed Ben Hamida</p> <p><i>A Novel Methodology for Target Classification Based on Dempster-Shafer Theory</i> Hasan Ihsan Turhan, Mubeccel Demirekler, and Melih Gunay</p> <p><i>A New Parameterless Credal Method to Track-to-Track Assignment Problem</i> Samir Hachour, Franois Delmotte, and David Mercier</p>
12:10 – 13:30	Lunch
13:30 – 15:00	<p style="text-align: center;"><b>Panel Discussion</b> - Chair: Fabio Cuzzolin</p> <p><b>Title:</b> “<i>The future of belief functions in the context of uncertainty theory</i>”</p>

15:00 – 16:20	<p style="text-align: center;"><b>Information Fusion</b> - Chair: Joachim Clemens</p> <p><i>Multi-Sensor Fusion Using Evidential SLAM for Navigating a Probe through Deep Ice</i> Joachim Clemens and Thomas Reineking</p> <p><i>Belief Fusion of Predictions of Industries in China's Stock Market</i> Yongjun Xu, Lin Wu, Xianbin Wu, and Zhiwei Xu</p> <p><i>An Evidential Fusion Rule for Ambient Intelligence for Activity Recognition</i> Faouzi Sebbak, Farid Benhammedi, Sofiane Bouznad, Abdelghani Chibani, and Yacine Amirat</p> <p><i>Evidential Fusion for Sentiment Polarity Classification</i> Yaxin Bi</p>
16:20 – 16:50	Coffee break
16:50 – 17:50	<p style="text-align: center;"><b>Geometry</b> - Chair: Anne-Laure Josselme</p> <p><i>Geometric Interpretations of Conflict: A Viewpoint</i> Thomas Burger</p> <p><i>Fast Computation of <math>L_p</math> Norm-Based Specialization Distances between Bodies of Evidence</i> Mehena Loudahi, John Klein, Jean-Marc Vannobel and Olivier Colot</p> <p><i>New Distance Measures of Evidence Based on Belief Intervals</i> Deqiang Han, Jean Dezert, and Yi Yang</p>
17:50 – 18:00	Closing Remarks