SMPS 2018/BELIEF 2018

JOINT

9th International Conference on Soft Methods in Probability and Statistics

and

5th International Conference on Belief Functions

17th-21th September 2018
Université de Technologie de Compiègne - Compiègne, FRANCE

The BELIEF and SMPS conferences are biennial events concerning the modeling of uncertainty. The BELIEF conferences are sponsored by the Belief Functions and Applications Society (BFAS) and are focused on the theory of belief functions, while the scope of SMPS covers the application of all approaches to uncertainty (including fuzzy and rough sets, imprecise probabilities, etc.) to statistics and data analysis. The co-location of the two events is intended to favor cross-fertilization among researchers active in both communities.

The joint events welcomes submissions of both applied and theoretical papers dealing with soft methods in probability and statistics as well as papers devoted to the advance of belief function theory. The joint event will be held in Compiègne, France, on September 17th–21th.

Typical topics of SMPS include:

- Analysis of Censored Data
- Analysis of Fuzzy Data
- Random Sets
- Fuzzy Random Variables
- Fuzzy Regression Methods
- Triangular Norms and Copulas
- Imprecise Probabilities
- Dempster-Shafer Theory
- Robust Methods
- Heuristic Optimization
- Soft Computing and Statistics
- Statistical Software for Imprecise Data

Typical topics of BELIEF include:

- Decision making
- Combination rules
- Conditioning
- Continuous belief functions
- Independence and graphical models
- Geometry and distance metrics
- Mathematical foundations
- Computational frameworks
- Data and information fusion
- Links with other uncertainty theories
- Tracking and data association

In addition, topics of interest to both conferences include:

- Statistical Inference
- Machine Learning and Pattern recognition
- Clustering and Classification
- Graphical Models
- Applications in network analysis

- Applications in environment and climate change
- Applications in biology and medical diagnosis
- Applications in risk and reliability analysis
- Applications in business and economics
- Applications in vision and image processing

In accordance with the previous conferences, the proceedings will be **published in the Springer Lecture Notes**. Authors are requested to prepare their conference papers in the LNCS/LNAI format; long and short papers must not exceed 8 and 4 pages, respectively, and must be submitted as PDF electronically. Submitted papers will be evaluated by peer reviews based on originality, significance, technical soundness, and clarity of exposition. Authors of accepted papers are expected to attend the conference to present their work. In addition, we accept abstract-only submissions that will be presented as posters.

Extended version of selected papers will appear in a **special issue** of the **International Journal of Approximate Reasoning**.

General chairs:
Thierry Denœux and Sébastien Destercke
Université de Technologie de Compiègne
France
e-mail: `sebastien.destercke@hds.utc.fr`

Important dates:

Paper submission:	March 15th, 2018
Notification of acceptance:	April 30th, 2018
Final version:	May 30th, 2018
Early registration:	July 10th, 2018
Conference:	September 17th–21th, 2018

Website: `https://smpsbelief2018.hds.utc.fr/`