BFAS School 2015

Third School on Belief Functions and Their Applications

Final report

The 3rd school on belief functions and their applications was held at Stella Plage, a French seaside town located in northern France on September 28th to October 2nd, 2015, where we enjoyed a sunny weather during the 5 days.

Programme

School programme is depicted in Figure 1. Speakers and lectures were the following:

1. **T. Denœux (Université de Technologie de Compiègne, France)**
   a. Lecture 1: introduction to belief functions
   b. Lecture 2: building belief functions
   c. Lecture 7: decision under uncertainty
   d. Lecture 10: classification, clustering and data analysis
2. **D. Dubois (IRIT Toulouse, France)**
   a. Lecture 3: Belief functions and uncertainty theories
3. **S. Destercke (Université de Technologie de Compiègne, France)**
   a. Lecture 4: On combinations and conflict
4. **A. Martin (Université Rennes 1, France)**
   a. Lecture 5: On belief functions implementations
5. **P. Shenoy (University of Kansas, United States of America)**
   a. Lecture 6: Valuation-based systems
6. **E. Miranda (University of Oviedo, Spain)**
   a. Lecture 8: Random sets and belief functions
7. **A.L. Jousselme (NATO CMRE, La Spezia, Italy)**
   a. Lecture 9: On distances between belief functions
8. **D. Mercier (University of Artois, France)**
   a. Lecture 11: On belief function corrections

	Monday September 28th	Tuesday September 29th	Wednesday September 30th	Thursday October 1st	Friday October 2nd
07:30			Breakfast		
08:00		Breakfast		Breakfast	Breakfast
08:30			Lecture 6. P. Shenoy - Valuation-based Systems - (Room Neptune)		
09:00		Lecture 3. D. Dubois - BF and uncertainty theories - (Room Neptune)		Lecture 8. E. Miranda - Random sets and BF - (Room Neptune)	Lecture 11. D. Mercier - Corrections of BF - (Room Neptune)
09:30			Coffee Break (room Saturne)		
10:00		Coffee Break (room Saturne)		Coffee Break (room Saturne)	Coffee Break (room Saturne)
10:30			Lecture 7. T. Denoeux - BF and decision under uncertainty - (Room Neptune)		Evaluation and closign session (room Neptune)
11:00		Lecture 4. S. Destercke - On combinations & conflicts - (Room Neptune)		Lecture 9. A.L. Jousselme - Distances between BF - (Room Neptune)	
11:30			Lunch		Departure to Etaple train station
12:00					
12:30		Lunch		Lunch	
13:00	Lunch and registration (room Saturne)				
13:30					
14:00		Lecture 5. A. Martin - On BF implementations - (Room Neptune)		Lecture 10. T. Denoeux - Classification, clustering and data analysis - (Room Neptune)	
14:30	Lecture 1. T. Denoeux - Introduction to BF - (Room Neptune)				
15:00		Coffee Break (room Saturne)	Social event	Coffee Break (room Saturne)	
15:30	Coffee Break (room Saturne)				
16:00		Practical session (rooms Neptune and Saturne)		Practical session (rooms Neptune and Saturne)	
16:30	Lecture 2. T. Denoeux - Building BF - (Room Neptune)				
17:00					
17:30					
18:00					
18:30					
19:00					
19:30	Diner	Diner	Diner	Diner	
20:00					
20:30					

Figure 1: School Programme

Participants

40 participants (including 8 speakers) attended the school.

Figure 2: Photo taken on Wednesday, September 30th at Étaples (photo Samir Hachour)

Figure 3: Photo taken on Friday, October 2nd at Stella Plage where the school took place (photo Samir Hachour)

Some statistics over the 32 participants, which were not speakers.

Status	
PhD Students	22
Post. Doc.	3
Dr.	5
Pr.	2

Nationalities	
France	13
China (study in France)	5
Algeria (study in France)	4
Tunisia (study in France)	2
Turkey	2
Czech Republic	1
India (study in France)	1
Lebanon (study in France)	1
Maroc (study in France)	1
Thailand (work in France)	1
Tunisia	1

Institutions	
Université Artois	7
UTC Heudiasyc	7
Université Lille 1	2
Université Paris Est, LISSI	2
Université Rennes 1, IRISA	2
Agroparitech	1
Czech Academy of Sciences	1
Gazi University	1
IRSTEA	1
ISG, Tunis	1
LAAS-CNRS	1
Necmettin Erbakan University	1
Université JF Grenoble	1
Université Paris-Sud, IEF	1
Université Picardie	1
Université Poitiers, XLIM	1
Université Savoie, Listic	1

Recommendations and guidelines for next school

These recommendations come from the evaluation session of the school, and from the organisation committee.

Lectures were appreciated. Maybe the order of some was questioned: the lectures concerning other theories could have been placed at the end of the school. The lecture on Matlab should be replaced by a practical session. An hour and a half was good for a large majority of participants, however some students would have preferred a shorter duration. More session on belief function applications would be interesting.

Practical sessions were appreciated. It should be interested to do a practical session just after the first lecture to directly do some exercises. Maybe alternate one lecture (1h30) and one practical session (1h). Try to have the exercises in advance.

Poster sessions (a poster having to be done by each PhD students) during coffee breaks were unanimously plebiscited as well as their informal aspect. It has been appreciated that speakers give advice to PhD students during these breaks.

Availabilities of speakers were unanimously approved.

Wifi connections were not good. It should have been tested before the school.

A **larger whiteboard** would have been appreciated for lectures and practical sessions.

The **social event** (a visit of the typical fishing port of Étaples, with a visit of a sea fishing discovery and regional maritime culture centre, with some tastings and a boat trip) was unanimously approved.

The **location** was globally appreciated, the beach, the tranquillity, the bar, the different games on the site. However some would have preferred a less isolated place with closest markets. Price was good.

Having free evenings, full accommodation, and a **very convivial atmosphere** were appreciated.

Organisation committee board

The organisation committee board was composed of:

- Eric Lefevre, David Mercier and Frédéric Pichon from the University of Artois, LGI2A laboratory, France, and
- Olivier Colot and John Klein, from the University of Lille 1, CRIStAL laboratory, France.

Sponsors

A great thanks to our sponsors as well as to all participants and speakers.