

## A Top Data Science Team



ASAM research group

### Research Group



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### Research projects

- Methods in Fuzzy Statistics with applications

### Recent Mandates

- Probability of collapse on historical casing. Application of API 5C3 Annex F/H Methodology (S & L Consulting)
- Expertise 'Validierung des Modellansatzes zur Berechnung und Projektion der Einnahmen und Ausgaben der AHV' (Federal Social Insurance Office)
- SME Competitiveness Index (International Trade Center, joint agency of the World Trade Organization and the United Nations)

### Courses

#### Bachelor

- 1 Introduction à la statistique I
- 2 Statistique: approfondissement
- 3 Économétrie (Neuchâtel)

#### Master

- 1 Thèmes choisis de statistique multivariée
- 2 Inférence, évaluation et sélection de modèles
- 3 Statistique bayésienne
- 4 Méthodes de classification

The master courses are given every two years. Exercises and workshops complete the courses. Jupyter notebooks are supplied too. The software R are used in all applications.



### Latest Papers and Conferences

Berkachy, Rédina and Donzé, Laurent. FuzzySTs: Fuzzy Statistical Tools, R package. (2020) 

Berkachy, Rédina and Donzé, Laurent. Generalisation of the Signed Distance. *Mathematics*. 12. (2024) 

Donzé, Laurent and Berkachy, Rédina. Fuzzy inferences for the mean of a distribution. An empirical comparison of different approaches based on the survey of Health, Ageing and Retirement. (2025) 

Rosset, Julien and Donzé, Laurent. Approximated Fuzzy p-values by Bootstrapped Fuzzy Distributions and Fuzzy Hypotheses Testing. (Nov. 20, 2024a) 

Rosset, Julien and Donzé, Laurent. New Decision Rules for Fuzzy Statistical Inferences. *Combining, Modelling and Analyzing Imprecision, Randomness and Dependence*. pp. 405–412. (2024b) 

Rosset, Julien and Donzé, Laurent. Fuzziest Estimate by Least Squares: Another Method to Estimate Fuzzy Orthogonal Linear Regression Models. *Computational Intelligence*. pp. 95–105. (2025a) 

Rosset, Julien and Donzé, Laurent. Fuzzy Confidence Intervals by Bootstrapped Fuzzy Distributions. *Information Processing and Management of Uncertainty in Knowledge-Based Systems*. pp. 247–253. (2025b) 

Rosset, Julien and Donzé, Laurent. Selection of Fuzzy Regression Models by AIC. *Computational Intelligence*. pp. 595–608. (2026a) 

Rosset, Julien and Donzé, Laurent. Statistical Inferences by Bootstrapped Fuzzy Distributions. *SN Computer Science*. 7:pp. 87. (2026b) 

