BOUAZIZ Olivier
Université Paris Cité

MAP5, 45 Rue des Saints-Pères
75270 Paris Cedex 06

☎ : 0033 1 76 53 03 79
✉ : olivier.bouaziz@parisdescartes.fr
http://helios.mi.parisdescartes.fr/∼obouaziz

Born August, 4th 1983
French

Position

Assistant/Associate professor at MAP5, UMR 8145 and IUT Université Paris Cité, since September 2010. This a tenure position, in France there is no difference between assistant or associate professor.

Background

2018-2019 : **Habilitation à Diriger des Recherches** (Diploma that grants the ability to supervise PhD students) at Université de Paris. Defense on November, 29th, 2018.
TITLE : *Theoretical and applied work on time to event analysis.*
Reviewers : Per Kragh Andersen, Pierre Joly, Pascale Thuber-Bitter.

2006-2009 : **PhD in Statistics** at LSTA laboratory, Paris VI. Defense on November, 24th, 2009 under the supervision of Professor Denis Bosq and Professor Michel Delecroix.
TITLE : *Single-Index Models for time to event analysis.*
Reviewers : Ingrid Van Keilegom, Peter Hall.

Lecturer at Créteil, Paris XII (62 hours of teaching per year).

2005-2006 : **Research Master on Mathematics and Applications, Speciality Statistics**, University Paris VI.

Research topics

My research focuses on survival analysis for incomplete data (right-censoring, interval-censoring, recurrent events). My work concerns both the development of new statistical methods to answer an original problem as well as the study of the performance of the methods from a theoretical point of view or the application of these methods on medical data. Specifically, my research topics are :

— mathematical statistics on non-parametric estimation methods (kernel estimators, model selection), semi-parametric estimation (Cox model, Aalen or single-index), with asymptotic type results (empirical processes) or finite distance results (oracle inequalities proved using concentration inequalities).

— computational statistics with focus on heterogeneity in survival analysis (EM algorithm, breakpoint detection method based on hidden Markov chains), regression estimation for interval-censored data, the use of penalized methods for high-dimensional data (LASSO or ridge type methods). Also machine learning methods such as probabilistic learning models (Sum-Product Networks), optimal transport methods for matching/co-clustering and machine learning methods for the prediction of time to event data.

— biomedical applications in collaboration with doctors or biologists, on malaria, diabetes, cardiology, cancer diseases, dental complications ... with publications in medical journals.

Publications and preprints

(1) A. Cwiling, V. Perduca, O. Bouaziz. *A Comprehensive Framework for Evaluating Time to Event Predictions using the Restricted Mean Survival Time.* **Submited.**

(2) R. Abergel, O. Bouaziz, G. Nuel *A Review on the Adaptive-Ridge Algorithm with Several Extensions.* **Submited.**

(3) V. Goepp, O. Bouaziz, G. Nuel *Spline Regression with Automatic Knot Selection.* **Submited.**

(4) S. Ammous, O. Bouaziz, J. Dedecker, J. El Methni, M. Mellouk, F. Muri *The robusTest package : two-sample tests revisited.* **Submited.**

(5) V. Perduca, O. Bouaziz, K. Zannis, M. Beaussier, O. Untereiner. *Can machine learning provide preoperative predictions of biological hemostasis after extracorporeal circulation for cardiac surgery ?* **Submited.**

(6) P. A. Geoffroy, V. Decio, P. Pirard, O. Bouaziz, E. Corruble, V. Kovess-Masfety, M. Lejoyeux, J. Messika, B. Pignon, V. Perduca, N. Regnault, S. Tebeka. *Lower risk of hospitalisation for depression following hospitalisation for COVID-19 versus for another reason ?* **Submited.**

(7) P. Pirard, V. Decio, B. Pignon, O. Bouaziz, V. Perduca, V. Kovess-Masfety, E. Corruble, F. Chin, P. A. Geoffroy, Y. Le Strat, J. Messika, N. Regnault, S. Tebeka. *Is there a lower risk of hospitalization for self-harm after hospitalization for COVID-19 ? A French nationwide longitudinal study.* **Submited.**

(8) O. Bouaziz *Assessing model prediction performance for the expected cumulative number of recurrent events.* **In press at Lifetime Data Analysis.**

(9) Nguyen T. T. Y., Bouaziz O., Harchaoui W., Neri C., Chambaz A. *Optimal transport-based machine learning to match specific expression patterns in omics data.* **Accepté à Journal of the Royal Statistical Society Series C.**

(10) B. Pignon, V. Decio, P. Pirard, O. Bouaziz, E. Corruble, P. A. Geoffroy, V. Kovess-Masfety, M. Leboyer, C. Lemogne, J. Messika, V. Perduca, F. Schürhoff, N. Regnault, S. Tebeka. *The risk of hospitalization for psychotic disorders following hospitalization for COVID-19 : a French nationwide longitudinal study* **Molecular Psychiatry , 2023**.

(11) O. Bouaziz *Fast approximations of pseudo-observations in the context of right-censoring and interval-censoring.* **Biometrical Journal, 2023.**

(12) V. Decio, P. Pirard, B. Pignon, O. Bouaziz, V. Perduca, F. Chin, Y. Le Strat, J. Messika, V. Kovess-Masfety, E. Corruble, N. Regnault, S. Tebeka. *Hospitalization for COVID-19 is associated with a higher risk of subsequent hospitalization for psychiatric disorders : A French nationwide longitudinal study comparing hospitalizations for COVID-19 and for other reasons.* **European Psychiatry, Volume 65, Issue 1, 2022.**

(13) Cheminant M., Fox T. A., Alligon M., Bouaziz O., ..., Suarez F. *Allogeneic stem cell transplantation compared to conservative management in adults with inborn errors of immunity and life-threatening complications : an international retrospective matched pairs analysis.* **Blood, Volume 141, Issue 1, 2022.**

(14) Mégret L., Mendoza C., Lobo M. A., Nguyen T. T. Y., Bouaziz O., Chambaz A., Neri C., Brouillet E. *Precision machine learning to understand miRNA regulation in neurodegenerative diseases.* **Frontiers in Molecular Neuroscience, 2022.**

(15) Lequy E., ..., Bouaziz O., ..., Jacquemin B. *Influence of exposure assessment methods on associations between long-term exposure to outdoor fine particulate matter and risk of cancer in the French cohort GAZEL.* **Science of the Total Environment, 2022.**

(16) Bouaziz O., Lauridsen E., Nuel G. *Regression modelling of interval censored data based on the adaptive ridge procedure.* **Journal of Applied Statistics, 2021, Volume 49, Issue 13, 2022, Pages 3319-3343.**

(17) Goepp V., Thalabard J-C., Nuel G., Bouaziz O. *Regularized bidimensional estimation of the hazard rate.* **The International Journal of Biostatistics, 2021.**

(18) Clavier P., Nuel G., Bouaziz O. *Gaussian Sum-Product Networks Learning in the Presence of Interval Censored Data..* **Probabilistic Graphical Models (PGM), 2020.**

(19) Lauridsen E., Andreasen J., O. Bouaziz, Andersson L. *Risk of ankylosis of 400 avulsed and replanted human teeth in relation to length of dry storage. A re-evaluation of a previous long-term clinical study.* **Dental Traumatology, 2019.**

(20) Bouaziz O., Brunel E., Comte F. *Nonparametric survival function estimation for data subject to interval censoring case 2.* **Journal of Nonparametric Statistics, Volume 31, Issue 4, 2019, Pages 952-987.**

(21) Schroder J., Bouaziz O., Agner R., Martinussen T., Madsen PL., Li D., Nedaei F., Dixen U. *Recurrent event survival analysis predicts future risk of hospitalization in patients with paroxysmal and persistent atrial fibrillation.* **PLoS ONE, Volume 14, Month 6, 2019.**

(22) Bouaziz O., Courtin D., Cottrell G., Milet J., Nuel G., Garcia A. *Is placental malaria a long term risk factor for mild malaria attack in infancy ? A Beninese observational cohort study.* **Clinical Infectious Diseases, Volume 66, Issue 6, 2018, Pages 930-935.**

(23) Nuel G., Lefebvre A., Bouaziz O. *Computing Individual Risks based on Family History in Genetic Disease in the Presence of Competing Risks.* **Computational and Mathematical Methods in Medicine, Volume 2017, 2017.**

(24) Bouaziz O., Nuel, G. *A Change-Point Model for Detecting Heterogeneity in Ordered Survival Responses* . **Statistical Methods in Medical Research, Volume 27, Issue 12, 2017.**

(25) Bouaziz O., Nuel, G. *L_0 regularization for the estimation of piecewise constant hazard rates in survival analysis.* **Applied Mathematics, Volume 8, Number 3, 2017, Pages 377-394.**

(26) Clausen T., Bergholt T., Bouaziz O., Arpi M., Eriksson F., Rasmussen S., Keiding N., Løkkegaard E. *Broad-Spectrum Antibiotic Treatment and Subsequent Childhood Type 1 Diabetes : A Nationwide Danish Cohort Study* . **PLoS ONE, Volume 11, Month 8, 2016.**

(27) Bouaziz O., Guilloux, A. *A penalized algorithm for event-specific rate models for recurrent events.* **Biostatistics, Volume 16, Issue 2, 2015, Pages 281-294.**

(28) Bouaziz O., Geffray S., Lopez O. *Semiparametric inference for the recurrent event process through a single-index model.* **Statistics, Volume 49, Issue 2, 2015, Pages 361-385.**

(29) Bouaziz O., Comte F., Guilloux, A. *Nonparametric estimation of the intensity function of a recurrent event process.* **Statistica Sinica Vol. 23, No. 2, 2013, p. 635-665.**

(30) Bouaziz O., Lopez O. *Conditional density estimation in a censored single-index regression model.* **Bernoulli, Volume 16, Issue 2, 2010, Pages 514-542**.

R Packages

— `FastPseudo` implements pseudo-values for right-censored and interval-censored data using a fast and very accurate approximation, both for the survival function and the Restricted Mean Survival Time. The method is described in the paper (11).

— `pchsurv` models the instantaneous hazard rate using a piecewise constant function for right-censored and / or interval data while combining the adaptive ridge regularization method described in papers (16) and (25). This makes it possible to automatically choose from the data the instants of jumps, to estimate the values of the hazard rate and to estimate the regression parameters for the covariates.

— `robusTest` includes corrected versions of all standard tests (Pearson, Kendall, Spearman correlation tests, Wilcoxon independent and matched samples, variance test, median test). These new tests are asymptotically well calibrated, which means that the rejection ratio of a α test under the null hypothesis is asymptotically equal to α. The package also proposes a test for independence between two continuous variables of Kolmogorov-Smirnov's type.
This package is available on CRAN.
https://cran.r-project.org/web/packages/robusTest/index.html

All the packages are available here : https://github.com/obouaziz

Awards

2019-2023 : Prime d'Encadrement Doctoral et de Recherche (PEDR), Université de Paris.
(Personal grant based on research activity)

sept. 2011 : Best student talk award at the 17th European Young Statistical Meeting (EYSM), Lisbon (Portugal).

LNCC, IRESP and ANR projects

— From January 2020 to December 2022, I was the principal investigator for the grant project entitled "New Gene-Environment Interaction Detection Method for Cancer diseases". The grant (140 k€) was funded by the **French National League Against Cancer (LNCC)** and was a methodological project in genetic epidemiology. The proposed approach is designed to detect groups of individuals characterized by their environmental factors with different cancer risks. It is based on an extension of the breakpoint model developed in paper (24). The method will be applied to the EPIC dataset on breast cancer in women and to the UK Biobank dataset for different cancers. This project is in collaboration with Vivian Viallon, lecturer in statistics at the University Claude Bernard, Lyon and biostatistician at the International Agency for Research on Cancer (IARC), Grégory Nuel (Research Director CNRS, LPSM), Modibo Diabaté, PostDoc recruited on that grant (now assistant professor at ISEN Yncréa) and Marie Chion, also PostDoc recruited on that grant.
http://helios.mi.parisdescartes.fr/~obouaziz/LNCC.html

— From September 2013 to June 2016 I participated in the IRESP (French Public Health Research Institute) project called DECURION (DEscartes-CURie and ONcogenetics) led by Grégory Nuel (Research Director CNRS, LPMA). The project aimed to develop cancer risk prediction models (breast cancer and ovarian cancer in women) based on the family history of patients. The team consisted mainly of MAP5 members and members of the Curie Institute.

— From January 2009 to December 2012, I took part in the ANR (National Research Agency) Prognostic project (Point pROcess : learninG, NOnparametric STatistics and appliCations) led by Agathe Guilloux (LSTA lecturer). The team consisted mainly of members of LSTA (Paris 6) and LPMA (Paris 6 and Paris 7).
http://www.lsta.upmc.fr/prognostic/index.php?main=publications

PhD students and Interns

2023-2026 (3 years) : I am currently **supervising a PhD student**, Beatriz Farah Norões Gonçalves, former graduate of the Master 2 ENSAE Paris, with the Excellence Eiffel grant. The topic of the PhD is on quantile regression for censored data where the aim is to compute the sample size for the construction of statistical test based on quantiles in the context of clinical trials. It started in October 2023 and is co-supervised with Aurélien Latouche, professor at CNAM, Institut Curie. We also supervised the M2 internship of Beatriz.

2021-2024 (3 years) : I am currently **supervising a PhD student**, Ariane Cwiling, former graduate of the Data Science Master of Université Paris Dauphine. The topic of the PhD is on machine learning for survival data prediction with applications to patients with primary immunodeficiencies. It started in October 2021 and is co-supervised with Vittorio Perduca, assistant professor at MAP5. We also supervised the Master 2 internship of Ariane, where the aim was to implement the super-learner algorithm on time to event data, where the data were first transformed onto pseudo-observations and the super learner was directly applied to those transformed observations.

2021-2022 (1 year) : **Supervision of a Postdoc student**, Marie Chion, who had a PhD in Applied Mathematics at Université de Strasbourg (supervisors Frédéric Bertrand and Christine Carapito). This post-doc is the continuation of the Postdoc of Modibo Diabaté, on the development of new gene-environment interaction detection methods applied to the EPIC and UK Biobank data. It was also funded by the LNCC.

2020-2021 (1 year) : **Supervision of a Postdoc student**, Modibo Diabaté, who had a PhD in Applied Mathematics at Université Grenoble Alpes (supervisors Adeline Leclercq-Samson and Loren Coquille). The subject was on the development of new gene-environment interaction detection methods applied to the EPIC and UK Biobank data and was funded by the LNCC. A paper and its R package are in progress for this project on the development of a new method based on a Classification EM algorithm for ordered survival data.

2018-2023 (5 years) : I am currently **supervising a PhD student**, Thi Thanh Yen Nguyen, graduate of the Paris 13 Master of Mathematics. The subject is on "data-driven" mathematical modeling of the dynamics of vulnerability and brain senescence in neurodegenerative diseases. This thesis began in October 2018 and is co-supervised by Antoine Chambaz (University Professor, MAP5) and Christian Neri (INSERM Research Director at IBPS).

2016-2019 (3 years) : **Supervision of a PhD student**, Vivien Goepp, former CentralSupélec engineer and graduate of the master of statistics of UPMC. The subject focused on a new regularised method with applications to time to event analysis and statistics. This thesis began in October 2016, was co-supervised by Grégory Nuel (Research Director, LPSM) and was defended on September, 27th 2019.

2019 (6 month) : **Supervision of a Master 2 student**, Pierre Clavier, graduated from the Ecole Centrale de Lille and 2nd year Master's student at "applied and computational mathematics" in KTH, Sweden, on the topic "sum-product networks for time to event data". This internship was co-supervised by Grégory Nuel (Research Director, LPSM) and led to the paper (18).

2018 (3 month) : **Supervision of a Master 2 student**, Arthur Carcano, graduate of ENS Paris in computer science and student of the 1st year Master AIV (Life Sciences Master) of the CRI (Center for Interdisciplinary Research), on the detection of heterogeneity in relation to the date of diagnosis for survival after cancer. This internship was co-supervised by Grégory Nuel (Research Director, LPSM).

2017 (2 month) : **Supervision of a Bachelor student (3rd year)** Suzanne Sigalla, student at ENSAE Paristech, on the study of interval-censored data estimation methods, with a review of existing packages and an application to a dental dataset.

2016-2017 (6 month) : **Supervision of a Master 2 student**, Niklas Nyboe Maltzahn, of the 2nd year Master of the University of Copenhagen on a review of survival analysis models with random effect ("frailty models"), with a comparison study of the different R packages for frailty models. This internship was co-supervised by Grégory Nuel (Research Director, LPSM).

2016 (2 month) : **Supervision of a Bachelor student (3rd year)**, Aldéric Fraslin, student at ENSAE Paristech, on the estimation of the incidence of breast cancer in women in France from 1989 to 2010, taking into account the cohort effect, from a database of the MGEN. This internship was co-supervised by Grégory Nuel (Research Director, LPSM) .

2014 (6 month) : **Supervision of a Master 2 student**, Hajer Ben Tamansourt, 2nd year Master student in Mathematical Engineering on the study of joint modeling with application to the detection of premature birth on a database from the Necker-Enfants malades Hospital. This internship was co-supervised with Julien Stirnemann (Head of Clinic, Hospital Assistant at Necker Hospital).

2013 (6 month) : **Supervision of a Master 2 student**, Fouad Khellaf, 2nd year Master student in Mathematical Engineering on the study of the Cox model with fragility. Application on a multicenter dataset of patients with B-lymphoma who had a marrow bone transplant. This internship was co-supervised with Julien Stirnemann (Head of Clinic, Hospital Assistant at Necker Hospital).

Teaching

I am a **teacher at the STID (Statistics and Informatics for Decision)** department, IUT (Technological University Institute) de Paris, I am teaching 192 hours per year. The department delivers courses for undergraduate students only. Over the years I also had the opportunity to teach to graduate students at the Master levels in other departments. Since September 2023 I am **head of the third year students** at the SD (Data-Science) department, a work and study program. Before that I was **head of the Health Professional Bachelor** (3rd year students) of the STID department from 2019 until 2023. Previously, I was **head of the second year students** (full time programme) at the STID department, from 2015 until 2019.

This year (2023-2024) I teach for the **1st year students** a course on linear regression, for the **2nd year students** a course on time series, for the **3rd year students** a course on data-mining, logistic regression and survival analysis. Finally, for the **Master 2 students on Mathematics, Modeling, and Machine Learning** a course on classification. Below is the list of all the courses I have been teaching over the past years.

Classification. Master 2 Mathematics, Modeling, and Machine Learning, UFR Mathématiques et Informatique. 37,5H courses/tutorials/practicals (with R).

Bayes classifier, k-nearest neighbours, mixture models LDA and QDA, logistic regression, decision trees CART, random forests, boosting and bagging.

Survival analysis. Master 2 of Mathematical Engineering, Mathematics and Computer Science Faculty. 20H courses/tutorials/practicals (with R).
Health Professional Bachelor (3rd year students). 18H courses/practicals/tutorials (with SAS).

Kaplan-Meier estimator, log-rang test, generalised log-rang and stratified log-rang test, Cox model, goodness of fit for the Cox model.

Linear model and ANOVA. Health Professional Bachelor (3rd year students). 118H courses/tutorials/practicals (with R).
Second year students, work and study program. 28H courses/practicals/tutorials (with R).

ANOVA, simple and multiple linear regression, goodness of fit, variable selection methods (stepwise, AIC and BIC).

Parametric tests. Health Professional Bachelor (3rd year students). 24H courses/tutorials/practicals (with R).
Second year students, full time program. 72H courses/practicals/tutorials (with R).

Introduction to statistical tests (first and second error types, p-value, power), one and two sample tests (Student/Welch test), Fisher variance test, asymptotic variance test, χ^2 homogeneity and independence tests, Fisher exact test, Pearson and Spearman correlation tests and corrected asymptotical versions.

Time series. Second year students, full time program. 40H courses/tutorials/practicals (with R).

Calculation of trend by moving average and parametric methods, calculation of seasonal coefficients, predictions, residuals, autoregressive models, ARMA.

Non parametric tests. Second year students, full time program. 56H courses/tutorials/practicals (with R).

χ^2 goodness of fit test, Kolmogorov-Smirnov goodness of fit test and two sample Kolmogorov-Smirnov test, two sample Wilcoxon/Mann-Whitney test and corrected asymptotic version, sign test and Wilcoxon signed-rank test.

Estimation. "Année spéciale" (one year program that allowed to get the diploma in one year for students who already had a Bachelor). 32H courses/tutorials.

Bias, estimators with minimum variance, method of moments, maximum likelihood, confidence intervals.

Time series. First year students, full time program. 56H practicals (with Excel and R).

Least squares method, calculation of trend by moving average and parametric methods, calculation of seasonal coefficients, predictions, residuals.

Probability. First year students, full time program. 42H courses.

Definition of random variables, usual discret and continuous distributions, Markov and Bienaymé-Tchebycheff inequalities, convergence of random variables (in probability, almost surely, in distribution, in L^2), joint distribution of discrete and continuous random variables.

Descriptive statistics. First year students, full time program. 36H tutorials.

Statistical indicators (mean, quantiles, standard deviation), boxplots, empirical cumulative distribution function, histograms.

Projects supervision. Master 2 of Mathematical Engineering, Mathematics and Computer Science Faculty. Second year students. First year students.

Internships supervision. Health Professional Bachelor (3rd year students) and Data-Mining Professional Bachelor (3rd year students). Second year students (both full time program and work and study program).

Before my current position, I have also been teaching as a temporary lecturer at Nanterre university and during my PhD.

2009-2010 : Temporary lecturer at Nanterre university, Paris X, 192 hours. Time series tutorials and practicals (with R) for Master 1 students at ISIFAR. Descriptive statistics tutorials for 1st year and 2nd year students at the Bachelor of Psychology. Estimation tutorials for 2nd year students at the Bachelor of Psychology and for 3rd year students at the MIA Bachelor.

2006-2009 : Teacher (during my PhD) at Créteil university, Paris XII, 64 hours. Mathematics and applications for economy for 1st year students at the Bachelor of Economy.

Mobility

2017-2019 : 6 month CNRS research leave both years, at LPSM, UMR 8001.
https://www.lpsm.paris

2015 : Visiting professor at the Section of Biostatistics in Copenhagen, Denmark for 6 month.
https://biostat.ku.dk

Responsibilities

Dec. 2022 : **Member of the PhD thesis** of Quentin Le Coënt, Université de Bordeaux, Bordeaux.

2021-2022 : **Co-organiser** (scientific committee) of the Missing Data and Survival Analysis workshop that will be held at Université d'Angers, on the 30th, 31st of May and 1st of June 2022. The scientific committee also includes Mikael Escobar-Bach (LAREMA, Université d'Angers) and Erwan Scornet (CMAP, Ecole Polytechnique).
https://mdsa2022.sciencesconf.org

2020-2023 : **Member of the PhD supervisory committee** of Rémi Boutin, PhD student under the supervision of Pierre Latouche (MAP5) and Charles Bouveyron (Université Côté d'Azur).

2021-2024 : **Member of the PhD supervisory committee** of Marie Breeur, PhD student under the supervision of Vivian Viallon (International Agency for Research on Cancer).

Nov. 2020 : **Reviewer of the PhD thesis and member of the PhD committee** of Bassirou Mboup, Institut Curie, Paris.

Since 2019 : **Head of the Health Professional Bachelor** (third year students) of the STID department, IUT de Paris. Ten to twenty students per year in a work and study program. I follow-up students throughout the year, I coordinate student-teacher relationships, I organize students recruitment, I find lecturers for each course, I build the schedule and I organize the end-of-year jury.

April 2018 : **External member of the selection committee** for the recruitment of a lecturer in statistics at LPSM (University Paris 6 and 7).

Since 2018 : **Associate Editor** of The International Journal of Biostatistics.

Nov. 2017 : **Internal member of the selection committee** for the recruitment of a PRAG / PRCE (lecturer performing 384 hours of teaching a year) in expression-communication at the STID department of the IUT Paris Descartes.

2016-2019 : **Member of the PhD supervisory committee** of Emmanuel Caron, PhD student under the supervision of Jérôme Dedecker (MAP5) and Bertrand Michel (Ecole Centrale Nantes, Jean-Leray Mathematical Laboratory, Nantes).

Nov. 2016 : **External member of the PhD committee** of Mathilde Wanneveich, INSERM team of biostatistics ISPED, Bordeaux.

2015-2019 : **Head of second year students program** STID department, IUT Paris Descartes. Between 60 and 70 students a year, I followed-up students throughout the year, coordinated student-teacher relations, and organized juries (two per year) to validate the students diploma.

2013-2015 : **In charge of the tutored projects of the Health Professional Bachelor** at the IUT Paris Descartes. I was in charge of contacting health professionals to supervise students' projects, organize the various oral defenses that take place around projects and coordinate the progress of projects between students and tutors. These two years I also participated in the recruitment of students of the Health Professional Bachelor with Jérôme Dedecker (Professor, MAP5).

Avril 2014 : **Internal member of the selection committee** for the recruitment of two assistant professors in statistics at MAP5 (UFR Mathematics and Computer Science department and IUT STID department).

2013-2020 : **Organizer of the statistical seminar** of MAP5 laboratory.

2013-2016 : **External member of the Local Scientific Council** of the UFR Mathematics and Computer Science of Paris Descartes University.

2013 : **French Correspondent of the organizing committee** of the 18th European Young Statistician Meeting (26-30 August 2013, Osijek, Croatia).

Since 2012 : **Peer-reviewing** for the following scientific journals : *Statistics (2)*, *Computational Statistics and Data Analysis*, *Journal of Nonparametric Statistics*, *Sankhya (The Indian Journal of Statistics)*, *Statistics and Probability Letters*, *The International Journal of Biostatistics*, *Journal of the Royal Statistical Society (Series B)*, *Journal of the Royal Statistical Society (Series C)*, *Metrika*, *Biometrical Journal*, *Journal of Applied Statistics*, *Communication in Statistics - Theory and Methods*, *Lifetime Data Analysis (3)*, *Biometrics*, *Statistics in Medicine*, *Biometrika*, *Computational Statistics*.

2011-2014 : **Member of the Department Council** of STID Department of IUT Paris Descartes.

Talks as an invited speaker

(1) Séminaire Parisien de Statistique (IHP), June 2023.
Study of the adaptive-ridge algorithm with applications to time to event data

(2) Séminaire du Laboratoire de Mathématiques de Reims, May 2023.
Study of the adaptive-ridge algorithm with applications to time to event data

(3) Statistic seminar, MAP5 (Université Paris Cité), June 2022.
Discussions on pseudo-observations for right-censored and interval-censored data

(4) Probability and Statistic seminar, LAREMA (Université d'Angers), March 2021.
Penalized estimation methods for time to event data based on the adaptive-ridge procedure

(5) Seminar at the Department of Mathematics and Computer Science (University of Southern Denmark, Odense), March 2021.
Penalized estimation methods for time to event data based on the adaptive-ridge procedure

(6) Statistics seminar at laboratory Jean Kuntzmann - Data and Stochastic : Theory and Applications (Université Grenoble Alpes), February 2020.
Penalized estimation methods for time to event data based on the adaptive-ridge procedure

(7) Statistics and probability seminar at JA Dieudonné laboratory (Université Côte d'Azur), January 2020.
Penalized estimation methods for time to event data based on the adaptive-ridge procedure

(8) Statistics seminar at CépiDc (INSERM), June 2019.
New methods based on the adaptive ridge procedure to take into account age, period and cohort effects

(9) Statistics seminar at ERIC laboratory (Lyon 1 and 2), March 2019.
Penalized estimation methods for time to event data based on the adaptive-ridge procedure

(10) Statistics seminar at AgroParisTech, January 2019.
Penalized estimation methods for time to event data based on the adaptive-ridge procedure

(11) Statistics and probability seminar at Paul Painlevé (Lille) laboratory, January 2019.
Penalized estimation methods for time to event data based on the adaptive-ridge procedure

(12) Applied Mathematics seminar at Jean-Leray laboratory (Nantes), November 2018.
Penalized estimation methods for time to event data based on the adaptive-ridge procedure

(13) Statistics seminar at LPSM (Paris 6 et 7), March 2018.
New Methods for Detecting and Modelling Heterogeneity in Survival Responses

(14) 1st International Conference on Econometrics and Statistics, Hong-Kong, June 2017.
A penalized algorithm for event-specific rate models for recurrent events

(15) 2017 Conference on Lifetime Data Science, Connecticut (USA), May 2017.
A change-point model for detecting heterogeneity in ordered survival responses

(16) Workshop at CRC, Université Paris Descartes, INSERM team, February 2016.
A review of recurrent events methods with application to a Danish dataset on Atrial Fibrillation

(17) Biostatistics workshop, Institut Claude Bernard, Hôpital Bichat (Paris), INSERM team, February 2016.
A review of recurrent events methods with application to a Danish dataset on Atrial Fibrillation

(18) Workshop at the department of Biostatistics, University of Copenhagen, Denmark, May 2015.
Regression based methods on interval censored event times

(19) Seminar of the department of Biostatistics, University of Copenhagen, Denmark, December 2014.
A penalized algorithm for event-specific rate models for recurrent events

(20) Econometry and Statistics seminar at EQUIPPE laboratory, Université Lille 1, November 2012.
Estimation non-paramétrique de l'intensité du processus de comptage des évènements récurrents

(21) MAP5 seminar, Université Paris Descartes, November 2012.
Estimation non-paramétrique de l'intensité du processus de comptage des évènements récurrents

(22) Journées MAS, Clermont-Ferrand, August 2012.
Estimation de la densité conditionnelle dans un modèle à direction révélatrice unique en présence de censures

(23) The 17th European Young Statistician Meeting (EYSM), Lisbon (Portugal), September 2011.
Conditional density estimation in a censored single-index regression model.

(24) Workshop at ECAIS, Université Paris Descartes, January 2011.
Inférence semi-paramétrique pour des évènements récurrents en présence de censure et d'un évènement terminal

(25) Workshop at MAP5, Université Paris Descartes, December 2010.
Inférence semi-paramétrique pour des évènements récurrents en présence de censure et d'un évènement terminal

(26) Seminar at MODAL'X, Université Paris X (Nanterre), January 2010.
Propriétés des intégrales Kaplan-Meier et application à l'estimation de la densité conditionnelle en présence de censure.

(27) Seminar at IRMA, Université de Strasbourg, January 2010.
Estimation de la densité conditionnelle dans un modèle à direction révélatrice unique en présence de censure.

(28) Statistics seminar at MAP5, Université Paris V, December 2009.
Propriétés des intégrales Kaplan-Meier et application à l'estimation de la densité conditionnelle en présence de censure

(29) Statistics and probability seminar, Université Montpellier II, November 2009.
Inférence semi-paramétrique pour des évènements récurrents en présence de censure et d'un évènement terminal.

(30) Statistics and probability seminar, Université Montpellier II, October 2008.
Estimation de la densité conditionnelle dans un modèle à direction révélatrice unique en présence de censure.

Peer-reviewed talks

(1) The International Biometrics Conference, Riga (Latvia), July 2022.
Fast approximations of pseudo-observations in the context of right-censoring and interval-censoring.

(2) The International Biometrics Conference (virtual conference), August 2020.
Regression modelling for interval-censored data with application to a dental dataset

(3) The International Biometrics Conference, Barcelone (Spain), July 2018.
Regression modeling of interval censored data with a cure fraction

(4) The International Workshop of Applied Probability, Budapest (Hungary), June 2018.
A change-point model for detecting heterogeneity in ordered survival responses

(5) The International Biometrics Conference, Victoria Islands (Canada), July 2016.
Cohort effect in survival analysis : a change-point perspective

(6) The International Biometrics Conference, Florence (Italy), July 2014.
A penalized algorithm for event-specific rate models for recurrent events

(7) Dynstoch workshop, Copenhague (Denmark), April 2013.
A LASSO estimator for event-specific rate models for recurrent events

(8) 43èmes Journées de Statistique de la SFDS, Tunis (Tunisia), May 2011.
Estimation nonparamétrique de l'intensité du processus de comptage des évènements récurrents

(9) Troisièmes rencontres des jeunes statisticiens, Aussois (France), September 2009.
Inférence semi-paramétrique pour des évènements récurrents en présence de censure et d'un évènement terminal.

(10) 41èmes Journées de Statistique de la SFDS, Bordeaux (France), May 2009.
Inférence semi-paramétrique pour des évènements récurrents en présence de censure et d'un évènement terminal.

(11) International Workshop on Applied Probability, Compiègne (France), July 2008.
Conditional density estimation in a single-index censored regression model.

(12) Journées de Statistique, SSC-SFDS, Ottawa (Canada), May 2008.
Conditional density estimation in a single-index censored regression model.