Curriculum Vitae

Julie Josse

Nationality: French.
Date of birth: 10th November 1983.

Position
Professor of Statistics - Centre de Mathématiques Appliquées, Ecole Polytechnique, September 2016.

Address
Centre de Mathématiques Appliquées
Ecole Polytechnique, route de Saclay
91128 Palaiseau Cedex, France
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Education - previous positions

- 2016: **Habilitation à diriger des recherches defended 30 August.** Orsay University. *"Contribution to missing values and principal components methods".* **Committee**: reviewers: G. Celeux (INRIA), J. Friedman (Univ. Stanford), P. Hoff (Univ. Washington); members: A. Ruiz-Gazen (Univ. Toulouse 1), P. Massart (Orsay), E. Moulines (Polytechnique), F. Murtagh (Univ. London), D. Paindaveine (Univ. Bruxelles).

- 2016. Research associate (délégation) team SELECT, INRIA University Paris-Sud, Orsay

- 2011–2015 Associate professor - Statistics department, Agrocampus Ouest (grande école, Ministry of agriculture), Rennes (Brittany, France). (IRMAR - UMR 6625 - CNRS).

- 2007–2010: **PhD thesis in Statistics defended 22 October 2010.** Agrocampus. *"Gestion des données manquantes en analyse exploratoire des données".* Advisors: J. Pagès & F. Husson (Pr, Agrocampus). **Committee**: M. Greenacre (Pr, Barcelona Spain), H.A.L. Kiers (Pr, Groëningen the Netherlands, reviewer), G. Govaert (Pr, Univ. Compiègne France, reviewer), P. Kroonenberg (Pr, Leiden the Netherlands), A. Morin (Ass-pr, IRISA, Rennes France).

  Award: best doctoral PhD thesis in applied statistics by the French Statistical Society (Prix Marie-Jeanne Laurent-Duhamel).

- 2006–2010. Engineer - Ingénieur d'études (computer manager) - Agrocampus.

- 2004–2006 **Master degree Statistics** *summa cum laude* University Rennes II, France.

Publications

Books

- R pour les statistiques et la data-science (2018), PUR. https://r-stat-sc-donnees.github.io/

- PA. Cornillon, A. Guyader, F. Husson, N. Jégou, J. Josse, M. Kloareg, E. Matzner-Løber, L. Rouvière. (2012). R for Statistics, Chapman & Hall. 320 pages. 800 books sold. http://www.crcpress.com/product/isbn/9781439881453.

- PA. Cornillon, A. Guyader, F. Husson, N. Jégou, J. Josse, M. Kloareg, E. Matzner-Løber, L. Rouvière (2008, 2010, 2012). Statistiques avec R, Presses Universitaires de Rennes. 300 pages. More than 6300 books sold. http://www.pur-editions.fr/detail.php?idOuv=1836

Chapter in books

- F. Husson & J. Josse (2014). Multiple Correspondence Analysis. In: The Visualization and Verbalization of Data. Chapman & Hall/CRC. Edited by J. Blasius and M. Greenacre.

Articles

1. Seijo-Pardo, B., Alonso-Betanzos, A., P. Bennett, K. Bolón-Canedo, Josse, J., Saeed, M., Guyon, I. (2018). Feature selection in the presence of missing data. *Neurocomputing, ESANN.*

2. Josse, J., Husson, F. Robin, G. and Balasubramanian, N (2018). Imputation of mixed data with multilevel SVD. *In revision in Journal of Computational and Graphical Statistics.*

3. 2018 Jiang, W., Lavielle, M. and Josse, J. Stochastic approximation EM for logistic regression with missing values. Submitted.

4. Josse, J. & Reiter, J. (2018). Introduction to the Special Section on Missing Data. *Journal of Statistical Sciences.*

5. Seijo-Pardo, B., Alonso-Betanzos, A. Bennett, K., Bolon-Canedo, V., Guyon, I., Josse, J. & Saeed, M. Analysis of imputation bias for feature selection with missing data. (2018). European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning.

6. Josse, J. & Holmes, S. (2017). Discussion of 50 Years of Data Science. *Journal of Computational and Graphical Statistics.*

7. Bollmann, S., Cook, Di. Dumas, J., Fox, J., Josse, J., Keyes, O. Strobl, C., Turner, H. & Debelak, R. (2017). A First Survey on the Diversity of the R Community. *R journal.*

8. Mozharovskyi, P., Husson, F. & Josse, J. Nonparametric imputation by data depth. *In revision for JASA.*

9. Robin, G, Sardy, S., Moulines, E. and Josse, J. Low rank log-linear models for contingency tables. Submitted.

10. Josse, J. , Marin, J.M. & Robert, C.P. Some discussions on the Read Paper "Beyond subjective and objective in statistics" by A. Gelman and C. Hennig.

11. Sobczyk, P., Bogdan, M. & Josse, J. (2017). Bayesian dimensionality reduction with PCA using penalized semi-integrated likelihood. *Journal of Computational and Graphical Statistics.*

12. Foulley, JL, Celeux, G and Josse, J. Empirical Bayes approaches to PageRank type algorithms for rating scientific journals. Preprint.

13. Fithian, W. & Josse, J. (2016). Multiple Correspondence Analysis & the Multilogit Bilinear Model. *Journal of Multivariate Analysis.*

14. Husson, F., Josse, J. & Saporta, G. (2016). Jan de Leeuw and the French school of data analysis. *Journal of Statistical Software.*

15. Groenen, P. & Josse, J. (2016). Multinomial multiple correspondence analysis. *On Arxiv: http://arxiv.org/abs/1603.03174.*

16. Josse, J., Sardy, S. & Wager, S. (2016). denoiseR a package for low rank-matrix estimation. *On Arxiv: http://arxiv-web3.library.cornell.edu/abs/1310.6602, Journal of Statistical Software.*

17. Fujii H., Josse J., Tanioka M., Miyachi Y., Husson F. and Ono M. (2016). Regulatory T cells in melanoma revisited by a computational clustering of FOXP3+ T cell subpopulations. *Journal of Immunology.*

18. Josse, J. & Wager, S. (2016). Stable Autoencoding: A Flexible Framework for Regularized Low-Rank Matrix Estimation. *Journal of Machine Learning Research.*

19. Audigier, V., Husson, F. & Josse, J. (2016) MIMCA: Multiple imputation for categorical variables with multiple correspondence analysis. *Statistics and Computing.*

20. Josse, J. & Holmes, S (2015). Tests of independence and Beyond. *Statistics Survey.*

21. Audigier, V., Josse, J. & Husson, F. (2015). Multiple imputation for continuous variable using Bayesian PCA. *Journal of Statistical Computation and Simulation.*

22. Josse, J. & Sardy, S. (2015). Adaptive Shrinkage of singular values. *Statistics and Computing.*

23. Josse, J. & Husson, F. (2015). missMDA a package to handle missing values in and with multivariate data analysis methods. *Journal of Statistical Software.*

24. Audigier, V., Husson, F. & Josse, J. (2014). A principal components method to impute mixed data. *Advances in Data Analysis and Classification.*

25. Josse, J., Wager, S. & Husson, F. (2014). Confidence areas for fixed-effects PCA. *Journal of Computational and Graphical Statistics.*

26. Dray, S & Josse, J. (2014). Principal component analysis with missing values: a comparative survey of methods. *Plant Ecology.* **216** (5), 657-667.

27. Josse, J., van Eeuwijk, F., Piepho, H-P, Denis, J.B. (2014). Another look at Bayesian analysis of AMMI models for genotype-environment data. *Journal of Agricultural, Biological, and Environmental Statistics.* **19** (2), 240-257

28. Verbanck, M. & Josse, J. & Husson, F. (2015). Regularized PCA to denoise and visualise data. *Statistics and Computing.* **25** (2), 471-486.

29. Josse, J. & Timmerman, M.E. & Kiers, H.A.L. (2013). Missing values in multi-level simultaneous component analysis. *Chemometrics and Intelligent Laboratory Systems.* **129**, 21-32.

30. Josse, J., & Husson, F. (2013). Handling missing values in Multiple Factor Analysis. *Food Quality and Preferences.* **30 (2)**, 77-85.

31. Josse, J., & Husson, F. (2013). Handling missing values in multivariate exploratory data analysis. *Journal of the French Statistical Society (SFdS).* **153 (2)**, 79-99. (Paper written for the best Ph.D doctoral thesis prize delivered by the French Statistical Society).

32. Josse, J., Chavent, M., Liquet, B. & Husson, F. (2012). Handling missing values with Regularized Iterative Multiple Correspondence Analysis. *Journal of Classification.* **29 (1)**, 91-116.

33. Denis, J.B. & Josse, J. (2012). Infering biadditive models within the Bayesian paradigm. Technical report: R2012. *http://prodinra.inra.fr/record/50125.*

34. Josse, J. & Husson, F. (2011). Selecting the number of components in PCA using cross-validation approximations. *Computational Statistics and Data Analysis.* **56 (6)**, 1869-1879.

35. Josse, J., Pagès, J. & Husson, F. (2011). Multiple Imputation in PCA. *Advances in Data Analysis and Classification.* **5 (3)**, 231-246.

36. Husson, F., Josse, J. & Pages, J. (2010). Principal component methods - hierarchical clustering - partitional clustering: why would we need to choose for visualizing data? *Technical report.*

37. Josse, J., Pagès, J. & Husson, F. (2009). Données manquantes en analyse en composantes principales. *Journal de la Société Française de Statitique (SFdS).* **150 (2)**, 28-51.

38. Josse, J., Pagès, J. & Husson, F. (2008). Testing the significance of the RV coeffcient. *Computational Statistics and Data Analysis.* **53**, 82-91.

39. Lê, S., Josse, J. & Husson, F. (2008). FactoMineR: an R package for multivariate analysis. *Journal of Statistical Software.* **25 (1)**, 1-18.

Abroad experiments

- Stanford University, Statistics department. Visiting professor (February 2018: 3w, February 2017: 2 w, April 2016, July - August 2015, November 2014 - January 2015, June 2014 - August 2014, April 2013 - July 2013)

- Geneve University, Mathematics department. Invited stay January 1017: 1w, March 2015: 1w, March 2014: 1w.

- Washington State University, Statistics department. Invited February 2018: 1 week. Visit January 2015: 1 week.

- Rotterdam Erasmus School of Economics, Econometrics. Invited stay February 2015: 2 weeks.

- Los Alamos National Laboratory. Invited stay February 2015: 1 week.

- Wroclaw University, Mathematics department. Invited stay October 2014: 1 week; Leiden University April - June 2011;

Awards and Fellowships

- DataIA grant (2018-2020), 250Ke. "Missing data in the big data era", with Gael Varoquaux, INRIA Parietal. `http://dataia.eu/actualites/linstitut-dataia-vous-presente-le-projet-missingbigda`

- R consortium grant (2018-2019) for "A unified platform for missing values methods and workflows" `https://www.r-consortium.org/projects/awarded-projects`, 10Ke.

- PEPS grant (2017-) `http://www.agence-maths-entreprises.fr/a/?q=fr/peps/` to support the project in collaboration with Paris hospital (APHP): handling missing data with heterogeneous data - modeling severe polytrauma patients. (Money for one internship of 6 months and 1 postdoc).

- AgreenSkills grant (Marie-Curie FP7 COFUND People Program) for mobility research (2013-2014: 12 months). It is an international program co-funded by the European Union designed to increase the research potential of promising researchers. `http://www.agreenskills.eu`.

- Ph.D. dissertation award (Marie-Jeanne Laurent-Duhamel - French Statistical Society), it rewards the quality of a young, french statistician's doctoral thesis. In 2012, it distinguishes a notable contribution to applied statistical research. `http://www.sfds.asso.fr/`

Talks in conferences, workshops, seminars

Conferences

- useR!2019, Toulouse, July 2019. **Invited: 1 hour**.

- French Statistical Society, Nancy, June 2019. **Invited: 1 hour**.

- The Big Sick Conference, Zermatt, Switzerland, February, 2019. **Invited: 1 hour**.

- R à Québec Montreal, Canada, July 2018. **Invited: 1 hour**.

- Insurance, Actuarial Science, Data and Models, Paris, June 2018. **Invited: 1 hour**.

- CMstat. London, December 2018.

- French - Finnish Workshop on Invariant Coordinate Selection. Toulouse, France, November 2017, **Invited: 1 hour**.

- Mathematical Methods of Modern Statistics, CIRM Luminy, France, July 2017. **Invited: 1 hour**.

- useR!2017 (The R user Conference), Bruxelles, Belgium, July, 2017. / French Statistical Society (SFdS), Avignon, France, June, 2017. /Working group on model based clustering group, Paris, France, July 2016. **Invited: 1 hour**. / Swiss Statistics day, Bern, Switzerland, April, 2015. **Invited: 1 hour**. /French Statistical Society (SFdS), Rennes, France, June, 2014. /AgroStat, Rabat, Maroco, March, 2014. / French annual Chemometrics meeting, Brest, France, September, 2013. **Invited: 1 hour**. /Computing & Statistics (ERCIM), London, UK, December, 2013. Invited in session/ Rencontres R, Lyon, France, June, 2013./ StatLearn Bordeaux, France, April, 2013. **Invited: 1 hour**. French Statistical Society (SFdS), Bruxelle, Belgique, May 2012. **Invited: 1 hour**. Talk for the Marie-Jeanne Laurent-Duhamel award for my Ph.D. dissertation/ Computing & Statistics (ERCIM), Oviedo, Spain, December, 2012/ Computational Statistics (COMPSTAT), Cyprus, August, 2012/ Rencontres R, Bordeaux, France, July, 2012/ German Classification Society (GfKl) and International Federation of Classification Societies (IFCS), Frankfurt, Germany, August, 2011. **Invited in session**/ useR! 2011 (The R user Conference), Warwick, England, August, 2011/ International Classification Conference, St Andrew, Scotland, July, 2011. **Invited in session.**/ Correspondence Analysis and Related MEthods (CARME), Rennes, France, February, 2011/ French Statistical Society (SFdS), Marseille, France, May, 2010/ French Statistical Society (SFdS), Bordeaux, France, May, 2009/ Agrostat, Louvain-la-Neuve, Belgique, January, 2009/ French Statistical Society (SFdS) and Statistical Society of Canada (SSC), Ottawa, Canada, May, 2008/ useR! 2007 (The R user Conference), Iowa State University, Ames, Iowa, August, 2007.

Seminars, workshops

- Rencontres statistiques lyonnaises, February, 2019.

- Statistics seminar, Nice, January, 2019.

- Statistics seminar, Luxembourg, November, 2019.

- Statistics seminar, Bordeaux, October 2018.

- Statistics seminar, MaIAGE, Jouy en Josas, 26 March 2018.

- Statistics seminar, Washington University, Seatle, 28 February 2018.

- Statistics seminar, Paris, IHP, 15 January 2018.

- Working group in Biostatistics, Department of Biostatistics and Epidemiology University of Massachusetts, Amherst, (remote) 20 July 2017.

- Seminar, CosmoStat, CosmoClub CEA saclay, 6 April 2017.

- Statistics seminar, Telecom, France, 23 March 2017.

- Statistics seminar, University of Economics and Business, Vienna, Austria, 17 March 2017.

- Statistics seminar, AgroParisTech, France, 13 June 2016.

- Statistics for Systems Biology seminar, Paris, France, 12 April 2016.

- Orsay, Statistics seminar, Paris Sud, France, 18 February 2016.

- **Industry**. Tesla Motors data scientists seminar, Palo Alto, California, US, 14 August 2015.

- INRIA Modal team, Statistics seminar, Lille, France, 14 April 2015.

- Toulouse School of Economics, Statistic and Econometrics seminar, France, 24 March 2015.

- Erasmus School of Economics, Econometrics seminar, Rotterdam, Hollande, 12 February 2015.

- **Industry**. Adobe Systems Corporate Headquarters, San Jose, California, 20 January 2015.

- Stanford University, Workshop in Biostatistics, Palo Alto, California, US, 15 January 2015.

- Malgorzata Bogdan group meeting, University of Wroclaw, Poland, 31 October 2014. Paris Descartes Map5, Statistics seminar, France, 24 October 2014. Montpellier 2 University, Statistics seminar, France, 20 October 2014. Angers University, Statistics seminar, France, 22 September 2014. Institut de mathématiques Bordeaux (IMB), Statistics seminar, France, 6 March 2014. Stanford University, Statistics seminar, Palo Alto, California, US, 23 July 2013. Susan Holmes group's meeting, Stanford University, Palo Alto, California, US, 5 June 2013. Stanford University, Workshop in Biostatistics, Palo Alto, California, US, 23 May 2013. CNAM, Statistics seminar, Paris, France, 16 January 2013. Workshop on ThRee-way methods In Chemistry And Psychology (and other areas) TRICAP, Bruges, Belgium, June 2-7th 2012/ Workshop on Statistical interpretation of Genotype-Environment data (plant breeding), INRA (French National Institute for Agricultural Research), Jouy en Josas, France, 4 April 2012/ Seminar for researchers of Agrocampus and INRA specialized in milk production and crop science, Agrocampus Rennes, France, 3rd October 2011/ Seminar for the psychometric's team of Leiden University, The Netherlands, 20 June 2011/ Statistics seminar, IUT de Caen Département STID, France, 22 March 2011/ Statistics seminar, équipe Mathématiques et Informatique Appliquées (MIA), INRA, Jouy-en-Josas, France, 8 March 2011/ Seminar in statistics for social sciences, Université Paris 1, France, 25 February 2011/ Statistics seminar, institut de mathématiques Bordeaux (IMB), France, 8 March 2010/ Statistics seminar, institut de recherche mathématique avancée (IRMA), Strasbourg, France, 7 October 2008/ Statistics seminar, institut Elie Cartan, Nancy, France, 13rd June 2008.

Tutorial in conferences - small lectures

- **Josse, J.** (2018). Exploratory Multivariate Data Analysis using R. 2 days, Cuba, for er-Biostat. `https://er-biostat.github.io/Courses/abouterbiostat0f1/`

- **Josse, J.** (2018). Data Science Summer School, Polytechnique (6h).

- **Josse, J.** (2018). useR!2018. Brisbane. (3h).

- **Josse, J.** (2018). Ecole de recherche de Aussois. Modélisation Mathématiques et Biodiversité. (4h).

- **Josse, J.** (2017). Missing values for ecologists, Biometry and Evolutionary Biology Lab, Lyon, 18 April (6h).

- **Josse, J.** (2017). Missing values. Center of Data Sciences, Saclay, 2 Mars 2017 (3h).

- **Josse, J.**. (2016). Massive and missing data (3h). useR!2016 (The R user Conference), Stanford, Palo Alto, June 27-30th.

- **Josse, J., & Husson, F**. (2015). Handling missing values with principal components methods (3h). useR!2015 (The R user Conference), Aalborg, Denmark, July 1-3th. **Josse, J., & Husson, F**. (2014). Dealing with missing values (3h). Stanford University, Palo Alto, 2 sessions, 9 and 11 July. (Master and Phd students in Statistics). **Josse, J.** (2011). Multi-table methods using the software R (3h). Workshop of the French Statistical Society. Ateliers de la SFdS. Paris, 1st April/ **Josse, J. & Husson, F.** (2010). Clustering and multiway methods (3h). useR!2010 (The R user Conference), Gaithersburg, Maryland, USA, July 20-23 th / **Josse, J., Husson, F.** & Lê, S. (2008). Exploratory data analysis (3h). useR!2008 (The R user Conference), Dortmund, Germany, August, 11-14th.

Softwares

I am deeply involved in the free R (`http://cran.r-project.org/`) statistical software community. We organized the R useR conference (500 participants) in 2009 in Rennes and I am regularly in PC of useR conferences. I use R for teaching, research, development, consulting, etc. It allows us to make the research reproducible and available for the users of different fields. I am working on the packages:

- FactoMineR (`http://factominer.free.fr`) dedicated to principal component methods (PCA, Correspondence Analysis for contingency tables, Multiple Correspondence Analysis for categorical data, MFA for multi-blocks data). Google users group and you-tube videos available.

- missMDA to perform principal component methods (PCA, MCA, MFA) with missing values and to impute continuous, categorical and mixed data. Multiple imputation is available.

- denoiseR to approximate a low-rank matrix from noisy data (Gaussian and Poisson Noise). Singular values shrinkage methods are implemented. (`https://github.com/julierennes`).

I am in the board of the French R committee (organization for coordinating R conferences "Les rencontres R") and I am involved in a task force on behalf of the R Foundation with the aim of increasing the participation of women and underepresented groups in the R community (`http://forwards.github.io/`). In nov 2016, I have been elected as a member of the R foundation (`https://www.r-project.org/`) and handle the R Foundation Conference Committee (`https://www.r-project.org/conferences.html`)

Scientific responsibilities

Head of conference organization

- President of the 1st conference on missing values and matrix completion MissData conference, Rennes, France, June 2015. `http://missdata2015.agrocampus-ouest.fr/`. Organized with INRIA Rennes. We do hope to do it again...

- President of the international CARME (Correspondence Analysis meeting), Agrocampus, Rennes, February 2011 (150 people). `http://carme2011.agrocampus-ouest.fr/`

- Vice-president of the international R conference useR!2009 conference, Agrocampus, Rennes, July 2009 (480 participants). `http://www.r-project.org/conferences/useR-2009/`

Member of conferences scientific committee

- useR!2017, Bruxel, Belgium, June 2017. `http://user2017.brussels/`.

- Les rencontres R, Anglet, France, June 2017. `http://angletr2017.com/`.

- chair of useR!2016, Stanford, CA, USA, July 2016. `http://user2016.org/`.

- IWSM 2016, International Workshop on Statistical Modelling, Rennes, France, 2016. `http://www.lebesgue.fr/fr/content/sem2016-iwsm2016` / useR!2015 conference, Aalborg, Denmark, July 2015. `http://user2015.math.aau.dk` /MissData, Rennes, France, June 2015. `http://missdata2015.agrocampus-ouest.fr/` ICCS 2015, Matrix Computational Methods for Modern Data Reykjavik, Iceland, June 1-3. French statistical society meeting (SFdS), Lille, June 2015. `http://jds2015.sfds.asso.fr`. International SensoMetrics conference, Chicago, United States, July 2014 - Second "Rencontres R", Lyon, June 2013, International Sensometrics, Agrocampus, Rennes, July 2012 - French Surveys, ENSAI, Rennes, November 2012.

Editorial - reviewing activities

- 2017 - Associate editor of Journal of Computational and Graphical Statistics `http://www.tandfonline.com/toc/ucgs20/current`

- 2010-2017 - Associate editor of Journal of Statistical Software. `http://www.jstatsoft.org/`

- Invited editor: PNAS, Statistical Science

- Referee for: Journal of the American Statistical Association, Journal of the Royal Statistical Society (C), Journal of Classification, Biometrics, JCGS, JMLR, BMC Bioinformatics, Journal of Statistical Software, Biometrics, Theoretical and Applied Genetics, Environmetrics, Statistical Analysis and Data Mining, Computational Statistic and Data Analysis, Modulad, Advances in Data Analysis and Classification, Statistics and Computing, etc....

- Reviewer for research projects for funding agency. The FWO, Belgium `http://www.fwo.be`; the Israel Science Foundation (ISF), `http://www.isf.org.il/english/`, "Evaluation of the professorship ad personam", University of Zurich.

Other responsibilities

- Board Member of the French Statistical Society (Elu au conseil SfdS) in charge of the communication. (2015 - 2018)

- Co-responsable of the Rennes statistics seminar (IRMAR, UMR CNRS 6625). (2012-2015) / Correspondent for the statistical semester 2016 of the Labex Centre de Mathématique Henri Lebesgue `http://www.lebesgue.fr`

Teaching

My teaching activities are diverse from the point of view of the teachings (statistics, machine learning, software, projects, etc.), the level of the students (bachelor - master degrees, PhD) and the training involved (ecole d'ingénieur, statistics, agronomy, geography, health, social-sciences etc.). The slides, exercices, etc.. are on my webpage. Here a list of my main activities:

Polytechnique, Saclay:

- Missing values (*20h*), 2018-.

- Machine Learning (*36h*), 2017-.

- R for Statistics, (*64h/year*), 2016-2018.

- The art of Regression, (*18h*), 2016.

- DataCamp, (*20h/year*), 2017-

- Research projects, 2017

Master degree in applied statistics, Agrocampus Ouest, Rennes:

- Experimental design (lecture), (*24h*), 2015.

- Principal component methods PCA, MCA, CA, etc..(lecture), (*24h/year*), 2014-2015.

- Statistics (estimator, inference, tests, etc.) (lecture), (*24h/year*), 2012-2014.

- Missing values in principal components methods (lecture), (*3h/year*), 2012-2014.

  Master UPMC Statistics, (*6h*), 2018. Master Big Data Dauphine, (*6h*), 2017. Master in applied statistics for industry and social sciences, University Rennes 2. Principal component methods (*12h/year*), 2006 - 2014.
  Master in fisheries, Agrocampus Ouest, Rennes. Introduction to GAM, (*3h/year*), 2013-2014. Bachelor in life and environmental sciences, Agrocampus Ouest, Rennes. Descriptive statistics, anova, linear regression, ... (*100h/year*), 2006 - 2014.
  Other teaching: Master in statistics, National Economics and Statistics Schools (ENSAI). Introduction to missing values, (*12h*), 2012. - Bachelor in biology, Pierre and Marie Currie University Paris - Agrocampus Ouest, Roscoff. bio-statistics, tests, ...(*30h*), 2012. - Master in food science, AgroParisTech, Massy, Paris. Multi-table methods with applications to sensory data, (*3h*), 2011. - Master in geography, University Rennes 2. Tests, (*18h*), 2010. - School of Public Health (EHESP). Biostatistics, (*18h*), 2010.

  Responsabilités administratives : Responsable du Master Data Sciences for Business (2018-), Coordination du Master X-HEC (Polytechnique, 2016-) - Conseil de département - Membre élu au Conseil des Enseignants (Agrocampus 2012-2014). Responsable des enseignements de statistique des ingénieurs (L3) à Agrocampus. (2011-2014).
  Coordinator of several statistical courses from the Master.

PhD Program:

- Stanford Statistics department. Principal component methods - Multi tables - Missing values, (*24h*), Stat 300, Summer 2015.

Diffusion:

- 25 January 2018: Talk at Women in Machine Learning meetup, Paris.

- Blog posts: https://www.r-bloggers.com/multiple-imputation-for-continuous-and-categorical-data/

- Blog posts: multivariate studies of the R community

- 3 October 2017, Table ronde, France is IA.

- 5 July 2017, Belgium. Presentation of the diversity initiative in the R community.

- 4 July 2017, Belgium. Animation of the Newbies session at useR! to present the R community to beginners.

- 20 avril 2017, Paris. Animation du R ladies meetup.

- 9 mars 2017, Polytechnique. Participation à "Filles et maths : une équation lumineuse".

- 2015 - Task force from the R foundation to increase women in R software / 17 juin 2014, ENS, Rennes. Participation à mathC2+ pour Animath (Association pour l'animation mathématique). Présentation du métier de statisticien à des lycéens./ 30 janvier 2014, INSA, Rennes. Participation à "Filles et maths : une équation lumineuse".

Students - Committee

Member of commitee:

• Rapporteur of the phD defense commitee of Alyssa Imbert under the supervision of N. Villa-Vialaneix.
• Member of the phD defense commitee of Arnaud Gloaguen under the supervision of A. Tenenhaus and Vincent Frouin.
• Member of the phD defense commitee of Aurore Archimbaud under the supervision of A. Ruiz Gazen. Toulouse, Janvier 2018.
• Member of the phD defense commitee of Gautier Marti under the supervision of F. Nielsen. Paris, November 2017.
• Member of the phD defense commitee of Pierre-Alexandre Mattei under the supervision of C. Bouyveron and P. Latouche. Paris 5, October 2017.
• Select an associate professor, statistic department, Polytechnique 2017.
• Select an associate professor, statistic department Dauphine. Poste MCF, 26e section, 2017.
• Select an associate professor, statistic department, CNAM. Poste MCF, 26e section, 2017.
• Select an associate professor, statistic department, Paris 6. Poste MCF, 26e section, 2016.
• Member of the phD defense commitee (rapporteur) of Belchin Kostov under the supervision of Monique Becue. Spain, July 2015. Member of the commitee to select an associate professor in the Probability and Statistics Department of University of Lille 1. Poste MCF, 26e section, mai 2015. Member of the commitee to select an associate professor in the statistic department of AgroParisTech. Poste MCF, 26e section, 12-13 june 2014. Member of the phD defense commitee of Anastasios Bellas under the supervision of C. Bouyveron and M. Cottrell. Paris 1, 28 january 2014. • Member of the phD thesis commitee of Anais Chalant (october 2013 -). Biodiversité et Vulnérabilité des poissons diadromes. UMR BOREA - Museum of natural history.

Postdoc:

- Work with Fabien Laporte, Sept. 2018 - .

- Work with Pavlo Mozharovskyi (grant from the Henri Lebesgue Mathematical center) Sept. 2015 - Sept. 2016. Current position: Assistant professor in ENSAI, Rennes.

PhD students:

- Supervision of the phD thesis with Jean-Pierre Nadal Sept 2019 -.

- Supervision of the phD thesis of Aude Sportisse with Claire Boyer Sept 2018 -.

- Supervision of the phD thesis of Nicolas Prost with Erwan Scornet & Gael Varoquaux Sept 2018 -.

- Supervision of the phD thesis of Wei Jian. Sept 2017 -.

- Supervision of the phD thesis of Genevieve Robin with Eric Moulines, oct 2016 -

- Supervision of the phD thesis of Vincent Audigier with François Husson on : *Multiple imputation with principal component methods*, sept 2013 - sept 2015. Current position: Assistant professor in CNAM, Paris.

- Participation to supervise the phD thesis of Piotr Sobczyk with Malgorzata Bogdan on the part: *Clustering variables*, June 2014 - . Participation to the phD thesis of Marie Verbanck on the part: *Regularized PCA*, 2013.

Master students supervision:

- internship of Antoine Ogier, April 2018-Sept 2018.

- internship of Nicolas Prost, April 2018-Sept 2018.

- internship of Aude Sportisse, April 2018-Sept 2018.

- internship of Wei Jian on logistic regression with missing values, April 2017-Sept 2017.

- internship of Tanu July 2017-Sept 2017/ internship of C. Laroche and B. Jolivet on Modeling events and decisions when handling severe trauma patients, June-August 2016. / Supervision of the internship of Simon Grah on Ranking and Rating of Scientific Journals, Avril-August 2016. / internships. V. Audigier on: *missing values for mixed data*, March-August 2012. K. A Ibrahim on *multiple imputation methods*, March-August 2011.

Consultancy for the public or private sector

- Consultant for the United Nation, Population Data Unit Population Division, Department of Economic and Social Affairs. 2019 -

- Training on Supervised Learning, Orange, 2018.

- Training on DataCamp, SAP, 2018.

- Training on programming with R, SFR, 30 November 2017.

- Committee for the challenge hackaton Speed data scientist, Société Générale - animath. 12-13 may 2017.

- Consultant for Kepler consulting and the start-up easyKost. December 2014 - `http://www. kepler-consulting.com/Index-eng.html`.

- Consultant for DANONE research, Paris 2014. Assessment of fluid intake across countries around the world: methodological and public health implications. /Consultant for L'OREAL Paris, 2013-2014. Clustering women of south Africa based on dermatology data, perception data and chemometrics data. / Statistics with the R software, (*6 times 8h*), 2010-2014. Inter - Companies Consulting, researchers and students from Agrocampus Ouest, Rennes. Analysis of consumers, (*3h*), 2012. CTIFL (interprofessional center for fruits and vegetables) - Analysis of sensory data, (*12h*), 2012. SICAVAC (interprofessional agronomic consulting in viticulture and oenology) - Presentation of the software SensoMineR to analyse sensory data, (*4h*), 2011. Ph.D students of a public science and technology institution (INRIA), Rennes.