RODOLPHE PRIAM

Mail: rpriam@gmail.com
Web: www.researchgate.net/profile/Rodolphe_Priam
    https://hal.inria.fr/search/index/?q=%2A&authFullName_s=Rodolphe+Priam
    https://www.amazon.com/Linear-Models-Basics-Pytorch-Scikit-Learn/dp/B0BRDGQND1

EDUCATION

University of Rennes 1, IRISA, France: Ph.D. student   Oct 1999 - Oct 2003
Dissertation Topic: Kohonen's map and textual contingency tables.
Advisor: Annie Morin.

ENSAI, France: Engineer statistician   Sept 1996-Sept1999

Honors and Awards : National Research Fellowship, 1999

PROFESSIONAL EXPERIENCES (Academic/Teaching Experience)

Freelance teacher, Guadeloupe, France: **Teacher**   Sept 2020 -

Hopital de Cayenne, French Guiana, France: **Biostatistician**   Sept 2019 - Aug 2020
Medical survey, count time serie, logistic regression, data analysis, langage R.

Freelance teacher, Guadeloupe, France: **Teacher**   May 2012 - Aug 2019
Part-time teaching for undergraduate mathematics.

University of Southampton, UK: **Research assistant**   Oct 2010 - May 2012
Research and developments in small area theory, benchmarking methods for business data
with and without log-transformation and back-transformation.

University of Southampton, UK: **Research assistant**   Oct 2009 - Sept 2010
Research and developments in survey theory, estimation of the variance for finite population.
Involved in part time in smaller projects (linkage for strings correspondence, simulation for
variance of an indicator on non responses).

University of Paris Descartes, France: **Engineer**   May 2009 - Sept 2009
Research on modeling and inference for data analysis (LBM and GTM).

University of Poitiers, France: **Lecturer Assistant**   Sept 2006 - March 2009
Weekly computer lab exercises and courses in statistics (test theory, time series), data mining
and computer programming. Supervision of projects in statistics and computing including
visit of the working place of the students. Projects for Msc students.

Inrets (Ifsttar), Arcueil, France : **Statistical engineer**   Feb 2006 - Aug 2006
Scoring in the domain of the transport, hierarchical regression with outliers.

University of Nantes, France: **Lecturer Assistant**   Sept 2003 - Aug 2005
Computer lab exercises, course in data mining. Projects for Msc students (java 3d and www).

PUBLICATIONS (JOURNAL, CONFERENCES, REPORTS)

R. Priam, Sparse […] family of generalized regressions with […] pca and autoencoder, Hal inria 2023.
R.Priam, Linear and Deep Models Basics with Pytorch, Numpy, and Scikit-Learn, **Book**, pp 283, 2022.
R.Priam, Generative elastic embedding: comparison [...], working paper, Hal inria2021.
R.Priam, Variational inference of sparse binomial model [...], working paper, Hal inria2021.
R.Priam, Residual odds ratios from 2x2xk tables, working paper, Hal inria2021.
R.Priam, Latent block principal component analysis for binary tables, Hal inria2021.
R.Priam, Negative binomial latent model with generalized constraints, Hal inria2021.
R.Priam, A brief survey of numerical procedures for empirical likelihood, Hal inria 2021.

E. Mosnier, F. Djossou, R. Priam, M. Demar, L. Epelboin, A. Carbunar, M. Douine, M. Gaillet, Y. Lazrek, L. Musset, Stratégie de dépistage du paludisme par PCR et traitement ciblé en population générale, en zone de transmission, en Guyane, Médecine et Maladies Infectieuses 50(6), **Supplement Elservier**, Page S170, 2020

R Priam, Visualization of generalized mean estimators using auxiliary information in survey sampling: additive case and stratification, Working paper, Hal Inria, 2020

Stephanie Dranebois, Marie Laure Lalanne-Mistrih, Liliane Thelusme, Rodolphe Priam, Sandra Deungoue, Magalie Demar, Maryvonne Dueymes, Nadia Sabbah, Physical activity on prescription by general practitioners in type 2 diabetes mellitus patients, practice and barriers in French Guiana. Working paper, https://www.researchsquare.com/article/rs-9011/v1, 2019.

R Priam, Visualization of generalized mean estimators using auxiliary information in survey sampling, **Communications in Statistics-Theory and Methods, Taylor & Francis**, 49(18), 4468-4489, 2019

R Priam, Symmetric generative methods and t-SNE: a short survey, Proceedings of the 13th International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications - Volume 3: IVAPP, SciTePress, 356-363, 2018

R Priam. A brief survey of numerical procedures for empirical likelihood (2017). Working paper, Hal Inria, 2021.

YG Berger, R Priam, A simple variance estimator of change for rotating repeated surveys: an application to the European Union Statistics on Income and Living Conditions household surveys, **Journal of the Royal Statistical Society: Series A** (Statistics in Society), 179, 251-272, 2016

R Priam, M Nadif, Data visualization via latent variables and mixture models: a brief survey, **Pattern Analysis and Applications** 19, **Elservier**, 807-819, 2016

R Priam, M Nadif, G Govaert, Generalized topographic block model, **Neurocomputing**, **Elservier**, 173(2), 442-449, 2015

R Priam, M Nadif, G Govaert, Topographic Bernoulli block mixture mapping for binary tables, **Pattern Analysis and Applications**, 17, **Elservier**, 839–847, 2014

RB Papalia, C Bruch, T Enderle, S Falorsi, A Fasulo, …, BLUE-Enterprise and Trade Statistics BLUE-ETS, Best practice recommandations on variance estimation and small area estimation in business surveys, Technical report, European project, 2013

R Priam, N Shlomo, Benchmarking a random intercept regression for small areas via additional columns and rows, Hal Inria, 2013.

R Priam, M Nadif, G Govaert, Gaussian Topographic Co-Clustering Model, The Twelfth International Symposium on Intelligent Data Analysis (**LNCS** 8207), **Springer**, 345-356, 2013

R Priam, M Nadif, G Govaert, Nonlinear Mapping by Constrained Co-clustering. Proceedings of the 1st International Conference on Pattern Recognition Applications and Methods - Volume 1: ICPRAM, SciTePress, 63-68, 2012

R Priam, M Nadif, Generative Topographic Mapping and Factor Analyzers, Proceedings of the 1st International Conference on Pattern Recognition Applications and Methods – Volume 2: ICPRAM, SciTePress, 284-287, 2012

R Priam, Online and forgetting learning for inference in GTM, 2012.

R Priam, N Shlomo, Calibration of small area estimates in business surveys (abstract), Proceedings of abstract of the conference SAE2011, 2011

YG Berger, R Priam, Estimation of correlations between cross-sectional estimates from repeated surveys: an application to the variance of change, Proceedings of Statistics Canada Symposium, 2010

Y Berger, R Priam, Variance estimation of hot-deck imputed estimator of change over time from repeated surveys (abstract), VII conference survey sampling in economic and social research, 2011

YG Berger, R Priam, A multivariate regression approach for estimating variances of measures of population change over time from rotating repeated surveys (abstract), The International Conference on Trends and Perspectives in Linear Statistical Inference, 2010

R Priam, M Nadif, A parameterization via random factor for generative topographic mapping, Hal Inria, 2009.

R Priam, M Nadif, G Govaert, The Block Generative Topographic Mapping, Artificial Neural Networks in Pattern Recognition (**LNAI** 5064), **Springer**, 13-23, 2008

R Priam, M Nadif, FX Jollois, Pixel-based visualization and density-based tabular model, Pixelization Paradigm (**LNCS** 4370), **Springer**, 110-118, 2007

R Priam, M Nadif, Probabilistic Enhanced Mapping with the Generative Tabular Model, Sixth International Conference on Data Mining, ICDM'06, **IEEE** , 1021-1025, 2006

R Priam, M Nadif, G Govaert, Binary block gtm: Carte auto-organisatrice probabiliste pour les grands tableaux binaires, Revue des nouvelles technologies de l'Information, **RNTI**, **Cépaduès-Éditions**, 265-272, 2008

R Priam, M Nadif, Carte auto-organisatrice probabiliste sur données binaires, Revue des nouvelles technologies de l'Information, **RNTI**, **Cépaduès-Éditions**, 445-456, 2006

R Priam, M Nadif, BATM: Bernoulli Aspect Topological Model, Extraction et Gestion des Connaissances (EGC), **RNTI**, **Cépaduès-Éditions**, 445-456, 2006

R Priam CASOM : Carte auto-organisée pour l'analyse exploratoire des tableaux de contingence, Revue des Nouvelles Technologies de l'Information, Volume Visualisation en Extraction des Connaissances, **RNTI**-E-7, **Cépaduès-Éditions**, 75-92, 2006

R Priam, CASOM: Som for contingency tables and biplot, 5th Workshop on Self-Organizing Maps (WSOM'05), 379-385, 2005

SUMMARY

Research
- 6 articles in journal (5 international and 1 national)
- 15 communications at conferences with committee
- 15 reports unpublished

Teaching

- Trenty different courses in statistics or data processing, at Institut national des sciences appliquées de Rennes (INSA), École nationale de la statistique et de l'analyse de l'information (ENSAI), Institut de Formation Supérieure en Informatique et Communication (IFSIC), Ecole Polytech'Nantes (SIRL1, SIRL2 et SIRL3), Université de Rennes 1 (Master 2, Deug SV1, IUP1 Miage à IUP3 Miage), Université de Poitiers, Niort (IUT STID).

- Six student projects in master or engineer school (kohonen map with sas, 3d interface in java for kohonen map, 3d interface in java for graph, boostrap for acp+random projection in r, summary of ir results into a textual matrix in java).

- Main subjects : introduction to programming langage and object-oriented programming (r, c, java, c++), statistical data analysis, statistical modeling and inference, applied statistics, introduction to probability, machine learning and data sciences with r, deep learning (neural architectures, training algorithms, pytorch).

PAST LECTURES AND PRACTICALS (1999-2008)

	Type	Descriptive	Type	Hours	Cursus	BAC+
1	Stat	Inferential statistics	TD	6	SIRL1	3
2	Stat	Data analysis (PCA, CA, MCA)	TD-TP	10.5	SIRL2	4
3	Stat	Queuing theory	TD	3	SIRL2	4
4	Stat(*)	Neural network and machine learning	Cours	3	SIRL2	4
5	Stat	Knowledge based system	TP/Mini projets	24	SIRL2	4
6	Info	Data structure	TP	10.5	SIRL1	3
7	Info	Human-machine interface	TP	30	SIRL1	3
8	Info	Java tool for web automatic query	3rd year project	4 months	SIRL3	5
9	Info	Java tool for data analysis se des données	3rd year project	4 months	SIRL3	5
10	Stat	Data analysis by kohonen map (SAS)	2nd year project	4 months	ENSAI	4
11	Stat	Random projection and PCA (R)	2nd year project	4 months	ENSAI	4
12	Info	Java 3d tool for visualisation of umap from som	TER	6 months	Master 2	4
13	Info	Java 3d tool for graph visualisation with mds	TER	6 months	Master 2	4
14	Info	Object-oriented programming in C++	TD/TP	22.5	ENSAI	4
15	Info	Distributed architecture, CORBA (C++, Java)	TD/TP	20	INSA	5
16	Info	Object-oriented programming in Java	TD/TP	30	IUP2 Miage	2
17	Info	Pascal language	TP	15	Deug SV1	1
18	Stat	Inferential statistics	TD/TP	18/12	IUP1 Miage	2
19	Stat	Data analysis, CA/AHC	TD	4	IUP3 Miage	4
20	Stat(*)	Datamining	Cours/TD	2/4	IUP3 Miage	4
21	Stat	Statistique, SAS	TP	16	IFSIC	4
22	Stat	Data analysis, CA	TD	2	ENSAI	4
23	Stat(*)	Estimation and parametric tests (x2)	Cours/TD	14/28	IUT STID	2
24	Stat(*)	R Language (x2)	TD	8	IUT STID	1
25	Stat(*)	Datamining, classification	Cours/TD	7/14	IUT STID	2
26	Stat	Analyse data analysis (x5)	Projet S3-S4	3 mois	IUT STID	2
27	Stat	Analyse data analysis (x6)	Stages S4	3 mois	IUT STID	2
28	Stat(*)	Introduction to time series (x1)	Cours/TD	7/14	IUT STID	1

Tableau 1: (*) means that a supporting document was written in word, powerpoint of latex. TD is for practical exercises with pencil, papers and blackboard while TP is for practical exercises with computer and blackboard. TER is for a special work contract of two years of teaching at university or school engineer after Phd. BAC+ is for the number of years after main exam for pupils before university.