

Charles BOUVEYRON
Professor of Statistics, Université Paris Descartes
Head of the Department of Statistics, Laboratoire MAP5
Associate Editor for The Annals of Applied Statistics

Vita



Born on 12/01/1979 in Lyon (France), married, 3 children
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Employment

- 2013-... **Full Professor of Applied Mathematics (Statistics)**
(Formally: *Professeur des Universités en Mathématiques Appliquées, section CNU 26*)
Laboratoire MAP5, UMR CNRS 8145, Université Paris Descartes
- 2012-2013 **Associate-Professor of Applied Mathematics**
Laboratoire SAMM, EA 4543, Université Paris 1 Panthéon-Sorbonne
- 2007-2012 **Assistant-Professor of Applied Mathematics**
Laboratoire SAMM, EA 4543, Université Paris 1 Panthéon-Sorbonne
- 2006-2007 **Post-doctoral researcher in Statistics**
Department of Mathematics & Statistics, Acadia University, Canada
- 2003-2006 **Ph.D. student in Statistics**
Mistis team, INRIA Rhône-Alpes, Grenoble

Education

- 2012 **Habilitation à diriger des recherches (HDR) of Applied Mathematics**
Title: Some contributions to statistical learning in high dimension, adaptive and on complex data.
Reviewers: Adrian Raftery, Stéphane Robin & Fabrice Rossi.
Award: "Très honorable", defended on November, 29, 2012, Université Paris 1.
- 2006 **Ph.D. of Applied Mathematics (Statistics)**
Title: Modeling and classification of high-dimensional data with applications in image analysis.
Advisors: Cordelia Schmid & Stéphane Girard. Reviewers: Gilles Celeux & Fionn Murthagh.
Award: "Très Bien", Université Joseph Fourier, Grenoble 1.
- 2003 **Master of Research (DEA) of Statistics**
Obtained with honors, Université Grenoble 1

Teaching

- 2013-... **Professor IUT Paris Descartes (~235h ETD/an)**
- Multivariate Statistics, 1st year DUT STID
 - Data analysis, 2nd year DUT STID
 - Advanced methods in Data Mining, Licence Pro Data Mining
 - Statistical analysis of networks, DU Analyste Big Data
 - Classification, DU Data Visualisation
 - + Classification, 2nd year Actuarial sciences, ISUP, Université Paris 6 (2013-2015)
 - + Classification of high-dimensional data, 2nd School of AstroStatistics, Ecole de Physique des Houches (2015)
- 2007-2013 **Assistant and Associate-Professor at Université Paris 1 Panthéon-Sorbonne (~240h ETD/an)**
- Probability and Statistics, 1st year Magistère Finance
 - Data analysis, M1 MAEF
 - Probability and Statistics with R, M2 Pro TIDE
 - Computational statistics, M2 Pro TIDE
 - Data analysis and data mining, M2 Pro MIAGE
 - + Classification, 2nd year Actuarial sciences, ISUP, Université Paris 6 (2013-2015)

Ph.D. students and postdocs

- 2016 **Supervision of the postdoc of Laurent Bergé**
Topic: Clustering of networks with textual edges. Université Paris 5.
- 2014-... **Supervision of the Ph.D. thesis of Pierre-Alexandre Mattei**
Title: Model-based sparse clustering for massive and high-dimensional data. Université Paris 5.
- 2013-2016 **Supervision of the Ph.D. thesis of Rawya Zreik**
Title: Statistical analysis of temporal networks and applications to historical sciences. Defended on November 2016, Univ. Paris 1 & Paris 5.
- 2011-2014 **Supervision of the Ph.D. thesis of Anastasios Bellas**
Title: Anomaly detection in high-dimensional data streams. Defended on January 2014, Paris 1 & SNECMA.
- 2008-2011 **Supervision of the Ph.D. thesis of Camille Brunet**
Title: Sparse and discriminative clustering with application to Cytology. Defended on December 2011, Univ. Evry.

Research supervision

- 2014-... **Reviewer of 1 HDR thesis**
Stéphane Chrétien, Université de Franche-Comté, Besançon, November 2104
- 2012-... **Reviewer and comity member of 5 Ph.D. theses**
Vincent Audigier, AgroCampus Ouest, November 2015
Johanna Baro, Université Paris-Est, Marne-La-Vallée, March 2015
Julie Hamon, Université Lille 1, Lille, November 2013
Marie Galligan, University College Dublin, Irlande, February 2013
Sanjeena Subedi-Dang, University of Guelph, Canada, July 2012.
- 2010-... **Member of 6 Ph.D. thesis comities**
Jérémy Kellner, Université Lille 1, December 2016
Alberto Lumbreras, Université Lyon 2, October 2016
Rebecca Baur, Université Paris Descartes, November 2015
Nadia Kalfha, Université Pierre et Marie Curie, September 2015
Romain Bar, Université de Lorraine, Nancy, November 2013
Cécila Damon, Université Paris Sud, Saclay, September 2010
- 2005-... **Supervision of 7 Master students**
P.A. Mattei (ENS Cachan); R. El Hassan (Paris 6); Y. Jernite (Polytechnique); L. Bergé (Paris 1); C. Brunet (Paris 1); J. Kannala (Univ. of Olu, Finlande); A. Echenim (Univ. de Franche-Comté).

Scientific responsibilities

- 2016-... Associate editor of "The Annals of Applied Statistics", a journal of the Institute of Mathematical Statistics
- 2014-... Member of the steering committee of the Fondation des Sciences Mathématiques de Paris (FSMP)
- 2010-2015 President of the «Statistics and Image» group of the French Statistical Society (SFdS)
- 2011-... Expert for the French (ANR), Belgian (FNRS) and Czech (GACR) research agencies
- 2011-... Invited editor for 3 special issues of the Journal of the French Statistical Society (J-SFds)
- 2012-... Member of the scientific committee of 4 international conferences (GFKL, ESANN, JDS-SFds, SFC)
- 2005-... Reviewer for 15 international journals (JRSS, CSDA, STCO, COST, ADAC, ...)

Academic responsibilities

- 2013-... Head of the department of Statistics, Laboratoire MAP5, Université Paris Descartes
- 2013-... Member of the scientific board of laboratoire MAP5, Université Paris Descartes
- 2012-2013 Elected member of the scientific board of laboratoire SAMM, Université Paris 1
- 2010-2014 Elected member of the consultative scientific council 26-27, Université Paris 1
- 2010-... Member of 9 selection committees for Professor and Assitant-Professor positions (Univ. Paris 1, Univ. Paris 5, TelecomParis and Univ. Bordeaux 1)

Workshop organization

- 2010-... Founder and organizer of the 7 editions of the conference StatLearn (<http://statlearn.sfds.asso.fr>)
- 2014-... Principal co-organizer of the Working Group on Model-Based Clustering, University of Washington, USA
- 2013-... Organizer of the seminar of Statistics, Laboratoire MAP5, Université Paris 5
- 2011-2013 Organizer of the seminar "Statistical analysis of networks", Université Paris 1
- 2011 Co-organizer of the "journées d'Astro-Statistique", December 2011, Grenoble
- 2010 Organizer of the session "Classification", Journées MAS, September 2010, Bordeaux
- 2009 Organizer of the workshop "Statistics for image analysis", January 2009, Université Paris 1

Awards

- 2009-2017 Prime d'Excellence Scientifique (PES), Université Paris 1 and Université Paris 5
- 2012 Simon Régnier Award, Société Francophone de Classification
- 2011 Chikio Hayashi Award, International Federation of Classification Societies
- 2010 Young Researcher Award, International Association for Statistical Computing
- 2006 Honorary mention prize, Indian Conference ICVGIP

Research grants

- 2016-2018 Grant "Statistical analysis of networks with textual edges", SATT Idflnnov (50 k€)
- 2016-2018 Grant "Model-based co-clustering of functional data", Fondation J. Hadamard (20 k€)
- 2013-2017 Grant "Statistical analysis of networks for digital humanities", ISC-PIF, CNRS (102 k€)
- 2012-2013 Grant "Statistical analysis of networks", Université Paris 1 (23 k€)
- 2011-2014 Grant "Anomaly detection in high-dimensional streams", Snecma (150 k€)
- 2008-2011 Grant "Statistical learning with complex data", Université Paris 1 (15 k€)
- 2008-2009 Grant "Cervical cancer detection from cytological images", Novacyt (10 k€)

Research topics

1. **Statistical learning in high dimensions:** supervised and unsupervised classification of high-dimensional data, intrinsic dimension estimation, variable selection in clustering and regression, visualization of high-dimensional data.
2. **Adaptive statistical learning:** robust classification (with uncertain labels), weakly-supervised classification, regression with evolutive populations, classification with unobserved classes.
3. **Statistical learning on complex data:** supervised and unsupervised classification of networks, clustering of functional data, classification of heterogeneous data.
4. **Applications of statistical learning:** image analysis, bio-medical data, chemometrics, digital humanities, aeronautics.

Publications

Publication type	Quantity	Publication type	Quantity
Preprint	2	Invited conferences	12
Journal articles	30	International conferences	31
Book chapters	3	National conferences	19
Editorials and discussions	5	Softwares	14

Preprints (2)

- [1] J. Ulloa, T. Aubin, D. Llusia, C. Bouveyron & J. Sueur, *Measuring animal acoustic diversity in a tropical forest using unsupervised multiresolution analysis*, Preprint HAL n.01310409, Université Paris Descartes, 2016.
- [2] C. Bouveyron, P. Latouche & P.-A. Mattei, *Bayesian Variable Selection for Globally Sparse Probabilistic PCA*, Preprint HAL n.01310409, Université Paris Descartes, 2016.

Journal articles (30)

- [3] C. Bouveyron, P. Latouche and R. Zreik, *The Stochastic Topic Block Model for the Clustering of Networks with Textual Edges*, *Statistics and Computing*, in press, 2017.
- [4] C. Bouveyron, P. Latouche & R. Zreik, *The Dynamic Random Subgraph Model for the Clustering of Evolving Networks*, *Computational Statistics*, in press, 2017.
- [5] C. Bouveyron, G. Hébrail, F.-X. Jollois & J.-M. Poggi, *Un DU d'Analyste Big Data en formation continue courte, au niveau L3*, *Statistique et Enseignement*, vol. 7 (1), pp. 127-134, 2016.
- [6] C. Bouveyron, J. Chiquet, P. Latouche & P.-A. Mattei, *Combining a Relaxed EM Algorithm with Occam's Razor for Bayesian Variable Selection in High-Dimensional Regression*, *Journal of Multivariate Analysis*, vol. 146, pp. 177-190, 2016.
- [7] C. Bouveyron, M. Fauvel & S. Girard, *Parsimonious Gaussian process models for the classification of hyperspectral remote sensing images*, *IEEE Geoscience and Remote Sensing Letters*, vol. 12, pp.2423-2427, 2015.
- [8] C. Bouveyron, E. Côme & J. Jacques, *The discriminative functional mixture model for the analysis of bike sharing systems*, *The Annals of Applied Statistics*, vol. 9 (4), pp. 1726-1760, 2015.
- [9] C. Bouveyron, P. Latouche & R. Zreik, *Classification automatique de réseaux dynamiques avec sous-graphes : étude du scandale Enron*, *Journal de la Société Française de Statistique*, vol. 156(3), pp. 166-191, 2015.
- [10] C. Bouveyron, S. Girard & M. Fauvel, *Kernel discriminant analysis and clustering with parsimonious Gaussian process models*, *Statistics and Computing*, vol. 25(6), pp. 1143-1162, 2015.
- [11] Y. Jernite, P. Latouche, C. Bouveyron, P. Rivera, L. Jegou & S. Lamassé, *The random subgraph model for the analysis of an ecclesiastical network in merovingian Gaul*, *The Annals of Applied Statistics*, vol. 8(1), pp. 377-405, 2014.
- [12] C. Bouveyron, *Adaptive mixture discriminant analysis for supervised learning with unobserved classes*, *Journal of Classification*, vol. 31(1), pp. 49-84, 2014.
- [13] C. Bouveyron & C. Brunet, *Model-based clustering of high-dimensional data: A review*, *Computational Statistics and Data Analysis*, vol. 71, pp. 52-78, 2014.
- [14] C. Bouveyron & J. Jacques, *Adaptive mixtures of regressions: Improving predictive inference when population has changed*, *Communications in Statistics : Simulation and Computation*, vol. 43(10), pp. 2570-2592, 2014.
- [15] C. Bouveyron & C. Brunet, *Discriminative variable selection for clustering with the sparse Fisher-EM algorithm*, *Computational Statistics*, vol. 29(3-4), pp. 489-513, 2014.
- [16] C. Bouveyron, *Probabilistic model-based discriminant analysis and clustering methods in Chemometrics*, *Journal of Chemometrics*, vol. 27(12), pp. 433-446, 2013.
- [17] A. Bellas, C. Bouveyron, M. Cottrell & J. Lacaille, *Model-based clustering of high-dimensional data streams with online mixture of probabilistic PCA*, *Advances in Data Analysis and Classification*, vol. 7(3), pp. 281-300, 2013.
- [18] C. Bouveyron & C. Brunet, *Theoretical and practical considerations on the convergence properties of the Fisher-EM algorithm*, *Journal of Multivariate Analysis*, vol. 109, pp. 29-41, 2012.
- [19] L. Bergé, C. Bouveyron & S. Girard, *HDclassif : an R Package for Model-Based Clustering and Discriminant Analysis of High-Dimensional Data*, *Journal of Statistical Software*, vol. 42(6), pp. 1-29, 2012.

- [20] C. Bouveyron & C. Brunet, *Probabilistic Fisher discriminant analysis : A robust and flexible alternative to Fisher discriminant analysis*, Neurocomputing, vol. 90 (1), pp. 12-22, 2012.
- [21] C. Bouveyron & C. Brunet, *Simultaneous model-based clustering and visualization in the Fisher discriminative subspace*, Statistics and Computing, vol. 22 (1), pp. 301-324, 2012.
- [22] C. Bouveyron & C. Brunet, *On the estimation of the latent discriminative subspace in the Fisher-EM algorithm*, Journal de la Société Française de Statistique, vol. 152 (3), pp. 98-115, 2011.
- [23] C. Bouveyron, P. Gaubert and J. Jacques, *Adaptive models in regression for modeling and understanding evolving populations*, Journal of Case Studies in Business, Industry and Government Statistics, vol. 4 (2), pp. 83-92, 2011.
- [24] C. Bouveyron, G. Celeux & S. Girard, *Intrinsic Dimension Estimation by Maximum Likelihood in Probabilistic PCA*, Pattern Recognition Letters, vol. 32 (14), pp. 1706-1713, 2011.
- [25] C. Bouveyron & J. Jacques, *Model-based Clustering of Time Series in Group-specific Functional Subspaces*, Advances in Data Analysis and Classification, vol. 5 (4), pp. 281-300, 2011.
- [26] C. Bouveyron, O. Devos, L. Duponchel, S. Girard, J. Jacques & C. Ruckebusch, *Gaussian mixture models for the classification of high-dimensional vibrational spectroscopy data*, Journal of Chemometrics, vol. 24 (11-12), pp. 719-727, 2010.
- [27] C. Bouveyron & J. Jacques, *Adaptive linear models for regression: improving prediction when population has changed*, Pattern Recognition Letters, vol. 31 (14), pp. 2237-2247, 2010.
- [28] C. Bouveyron & S. Girard, *Robust supervised classification with mixture models: learning from data with uncertain labels*, Pattern Recognition, vol. 42 (11), pp. 2649-2658, 2009.
- [29] C. Bouveyron & S. Girard, *Classification supervisée et non supervisée des données de grande dimension*, La revue Modulad, vol. 40, pp. 81-102, 2009.
- [30] C. Bouveyron, S. Girard & C. Schmid, *High-Dimensional Data Clustering*, Computational Statistics and Data Analysis, vol. 52 (1), pp. 502-519, 2007.
- [31] C. Bouveyron, S. Girard & C. Schmid, *High Dimensional Discriminant Analysis*, Communications in Statistics: Theory and Methods, vol. 36 (14), pp. 2607-2623, 2007.
- [32] C. Bouveyron, S. Girard & C. Schmid, *Class-Specific Subspace Discriminant Analysis for High-Dimensional Data*, In Lecture Notes in Computer Science n.3940, pp. 139-150, Springer-Verlag, 2006.

Book chapters (3)

- [33] C. Bouveyron, *Model-based clustering of high-dimensional data in Astrophysics*, in Statistics for Astrophysics: Clustering and Classification, EAS Publications Series, EDP Sciences, vol. 77, pp. 91-119, 2016
- [34] C. Bouveyron, C. Ducruet, P. Latouche & R. Zreik, *Cluster Identification in Maritime Flows with Stochastic Methods*, in Maritime Networks: Spatial Structures and Time Dynamics, Routledge, 2015.
- [35] F. Beninel, C. Biernacki, C. Bouveyron, J. Jacques & A. Lourme, *Parametric link models for knowledge transfer in statistical learning*, in Knowledge Transfer : Practices, Types and Challenges, Ed. Dragan Ilic, Nova Publishers, 2012.

Editorials and discussions (4)

- [36] C. Bouveyron & P. Latouche, *Des réseaux, des textes et de la Statistique*, La lettre de l'INSMI, CNRS, édition de décembre, 2016.
- [37] C. Bouveyron, *Apprentissage statistique en grande dimension : enjeux et avancées récentes*, Journal de la Société Française de Statistique, vol. 155 (2), pp. 36-37, 2014.
- [38] C. Bouveyron, *Discussion on the paper by J. Fan, Y. Liao and M. Mincheva*, Journal of the Royal Statistical Society, Serie B, 2013.
- [39] C. Bouveyron, *Discussion on the paper by C. Hennig and T. Liao*, Journal of the Royal Statistical Society, Serie C, 2013.
- [40] C. Bouveyron, S. Girard & F. Forbes, *Nouveaux défis en apprentissage statistique*, Journal de la Société Française de Statistique, vol. 152 (3), pp. 1-2, 2011.

Invited communications (12)

- [41] C. Bouveyron, *Model-based coclustering of functional data*, Annual Conference of the Italian Statistical Society, Florence, Italy, June 2016.
- [42] C. Bouveyron, *The discriminative functional mixture model for the analysis of bike sharing systems*, 22nd International Conference on Computational Statistics, Oviedo, Spain, August 2016.
- [43] C. Bouveyron, *Model-based clustering of functional data: application to the analysis of bike sharing systems*, 12th International Conference on Operation Research, Havana, Cuba, March 2016.
- [44] C. Bouveyron, *Kernel discriminant analysis with parsimonious Gaussian process models*, 8th International Conference of the ERCIM, WG on Computational and Methodological Statistics, London, UK, December 2015.
- [45] C. Bouveyron, *Discriminative clustering of high-dimensional data*, Workshop on Model-Based Clustering and Classification, Catania, Italy, September 2014.
- [46] C. Bouveyron, *Discriminative variable selection for clustering*, 6th International Conference of the ERCIM, WG on Computational and Methodological Statistics, London, UK, December 2013.
- [47] C. Bouveyron, *The random subgraph model for the analysis of an ecclesiastical network in merovingian Gaul*, 20th Summer Working Group on Model-Based Clustering of the Department of Statistics of the University of Washington, Bologna, Italy, July 2013.
- [48] C. Bouveyron, *Clustering discriminatif et parcimonieux de données de grande dimension*, Conférence du prix Simon Régnier, 19ème rencontres de la Société Francophone de Classification, Marseille, 2012.
- [49] C. Bouveyron, *Parsimonious and sparse Gaussian models for high-dimensional clustering*, International Classification Conference 2011, St Andrews, UK, July 2011.
- [50] C. Bouveyron, *Model-based clustering of high-dimensional data : an overview and some recent advances*, 17th Summer Working Group on Model-Based Clustering of the Department of Statistics of the University of Washington, Grenoble, France, July 2010.
- [51] C. Bouveyron, *Classification of complex data with model-based techniques*, 1st joint meeting of the Statistical Society of Canada and the Société Française de Statistique, Ottawa, Canada, 2008.
- [52] C. Bouveyron, *An overview on high-dimensional data classification with model-based techniques*, 8th International Conference on Operations Research, Havana, Cuba, 2008.

International conferences (31)

- [53] C. Bouveyron, P. Latouche & P.-A. Mattei, *Globally Sparse Probabilistic PCA*, 19th International Conference on Artificial Intelligence and Statistics, Cadiz, Espagne, May 2016.
- [54] C. Bouveyron, J. Chiquet, P. Latouche & P.-A. Mattei, *Combining a Relaxed EM Algorithm with Occam's Razor for Bayesian Variable Selection in High-Dimensional Regression*, 26th European Conference on Machine Learning, Porto, Portugal, September 2015.
- [55] C. Bouveyron, P. Latouche & R. Zreik, *Clustering Evolving Networks with the Dynamic Random Subgraph Model*, 22th Summer Working Group on Model-Based Clustering of the Department of Statistics of the University of Washington, Seattle, USA, July 2015.
- [56] C. Bouveyron, P. Latouche & R. Zreik, *A State-Space Model for the Dynamic Random Subgraph Model*, 23th European Symposium on Artificial Neural Networks, Bruges, Belgium, 2015.
- [57] C. Bouveyron & J. Jacques, *Un algorithme EM pour une version parcimonieuse de l'analyse en composantes principales probabiliste*, 15ème Conférence Internationale sur l'Extraction et la Gestion des Connaissances (EGC), Luxembourg, January 2015.
- [58] C. Bouveyron, E. Côme & J. Jacques, *The discriminative functional mixture model for the analysis of bike sharing systems*, 21th Summer Working Group on Model-Based Clustering of the Department of Statistics of the University of Washington, Dublin, Irlande, July 2014.
- [59] C. Bouveyron & P. Latouche, *Stochastic blockmodelling applied to global maritime flows*, International Workshop ERC "World Seastems", Maritime Networks in Space and Time, Paris, France, 2014.
- [60] C. Bouveyron, M. Fauvel & S. Girard, *Kernel discriminant analysis and clustering with parsimonious Gaussian process models*, ICML workshop on Object, functional and structured data : towards next generation kernel-based methods, Edinburgh, Scotland, 2012.

- [61] A. Bellas, C. Bouveyron, M. Cottrell & J. Lacaille, *Robust clustering of high-dimensional data*, 20th European Symposium on Artificial Neural Networks, Bruges, Belgium, 2012.
- [62] C. Bouveyron, B. Hammer & T. Villmann, *Recent developments in clustering algorithms*, 20th European Symposium on Artificial Neural Networks, Bruges, Belgium, 2012.
- [63] C. Bouveyron & J. Jacques, *Model-based Clustering of Time Series in Group-specific Functional Subspaces*, 12th annual conference of the International Federation of Classification Societies, Frankfurt, Germany, 2011.
- [64] C. Bouveyron & C. Brunet, *Discriminative variable selection for clustering with the sparse Fisher-EM algorithm*, 14th International Conference on Applied Stochastic Models and Data Analysis, Roma, Italy, 2011.
- [65] C. Bouveyron & C. Brunet, *Probabilistic Fisher discriminant analysis*, 19th European Symposium on Artificial Neural Networks, Bruges, Belgium, 2011.
- [66] C. Bouveyron, *Adaptive Mixture Discriminant Analysis for Supervised Learning with Unobserved Classes*, 19th International Conference on Computational Statistics (COMPSTAT'10), Paris, France, August 2010.
- [67] C. Bouveyron, G. Celeux & S. Girard, *Intrinsic Dimension Estimation by Maximum Likelihood in Probabilistic PCA*, 73rd Annual Meeting of the Institute of Mathematical Statistics, Gothenburg, Sweden, August 2010.
- [68] C. Bouveyron & J. Jacques, *Adaptive mixtures of regressions: improving predictive inference when population has changed*, 4th conference on Computational Methods for Modelling and Learning in Social and Human Sciences (MASHS'10), Lille, France, June 2010.
- [69] C. Bouveyron, H. Chipman & E. Côme, *Supervised classification and visualization of social networks based on a probabilistic latent space model*, 7th International Workshop on Mining and Learning with Graphs, Leuven, Belgium, July 2009.
- [70] C. Bouveyron & C. Brunet, *Clustering in Fisher discriminative subspaces*, 13th International Conference on Applied Stochastic Models and Data Analysis, pp. 233-236, Vilnius, Lithuania, June 2009.
- [71] C. Bouveyron, *Weakly-supervised classification with mixture models for cervical cancer detection*, 10th International Work-Conference on Artificial Neural Networks (IWANN'09), pp. 1021-1028, Salamanca, Spain, June 2009.
- [72] C. Bouveyron, S. Girard & M. Olteanu, *Supervised classification of categorical data with uncertain labels for DNA barcoding*, 11th European Symposium on Artificial Neural Networks, pp. 29-34, Bruges, Belgium, April 2009.
- [73] C. Bouveyron, C. Brunet & V. Vigneron, *Classification of high-dimensional data for cervical cancer detection*, 11th European Symposium on Artificial Neural Networks, pp. 361-366, Bruges, Belgium, April 2009.
- [74] T. Alexandrov & C. Bouveyron, *High Dimensional Discriminant Analysis of MALDI imaging mass spectrometry data*, 11th International Federation of Classification Societies Conference, Dresden, Germany, March 2009.
- [75] C. Bouveyron & S. Girard, *Robust supervised classification with Gaussian mixtures: learning from data with uncertain labels*, 18th International Conference on Computational Statistics, pp. 129-136, Porto, Portugal, 2008.
- [76] C. Bouveyron & J. Jacques, *Adaptive linear models in regression for the modeling of housing market in different U.S. cities*, Computational Methods for Modeling and Learning in Social and Human Sciences, Créteil, France, 2008.
- [77] C. Bouveyron & J. Jacques, *Adaptative linear models for regression*, 1st joint meeting of the Statistical Society of Canada and the Société Française de Statistique, Ottawa, Canada, 2008.
- [78] C. Bouveyron & H. Chipman, *Visualization and classification of graph-structured data: the case of the Enron dataset*, 20th International Joint Conference on Neural Networks, pp. 1506-1511, Orlando, Floride, 2007.
- [79] C. Bouveyron, J. Kannala, C. Schmid & S. Girard. *Object Localization by Subspace clustering of Local Descriptors*. 5th Indian Conference on Computer Vision, Graphics and Image Processing, pp. 457-467, Madurai, India, 2006.
- [80] C. Bouveyron, S. Girard & C. Schmid, *High Dimensional Data Clustering*, 17th International Conference on Computational Statistics, pp. 812-820, Rome, Italie, 2006.
- [81] C. Bouveyron, S. Girard & C. Schmid, *High Dimensional Discriminant Analysis*, 11th International Conference on Applied Stochastic Models and Data Analysis, pp. 526-534, Brest, France, 2005.
- [82] C. Bouveyron, S. Girard & C. Schmid, *Classification of High Dimensional Data: High Dimensional Discriminant Analysis*, Workshop on Subspace, Latent Structure and Feature Selection techniques, Bohinj, Slovenia, 2005.
- [83] C. Bouveyron, S. Girard & C. Schmid, *Dimension Reduction and Classification Methods for Object Recognition in Vision*, 5th French-Danish Workshop on Spatial Statistics and Image Analysis in Biology, pp. 109-113, St-Pierre de Chartreuse, France, 2004.

National conferences (19)

- [84] C. Bouveyron, P. Latouche & P.-A. Mattei, *Globally Sparse Probabilistic PCA*, 48èmes Journées de Statistique de la Société Française de Statistique, Montpellier, 2016.
- [85] C. Bouveyron, E. Côme & J. Jacques, *Le modèle DFM pour une analyse comparative des systèmes de vélos en libre service*, 48èmes Journées de Statistique de la Société Française de Statistique, Montpellier, 2016.
- [86] C. Bouveyron & J. Jacques, *FunFEM: an R package for functional data clustering*, 4ème Rencontres R, Grenoble, 2015.
- [87] C. Bouveyron, J. Chiquet, P. Latouche & P.-A. Mattei, *Une relaxation continue du rasoir d'Occam pour la régression en grande dimension*, 47èmes Journées de Statistique de la Société Française de Statistique, Lille, 2015.
- [88] C. Bouveyron, G. Hébrail, F.-X. Jollois & J.-M. Poggi, *Un DU d'Analyste Big Data en formation continue courte au niveau L3*, 47èmes Journées de Statistique de la Société Française de Statistique, Lille, 2015.
- [89] C. Bouveyron, P. Latouche & R. Zreik, *Un modèle de sous-graphes aléatoires pour l'analyse de la dynamique d'un réseau historique*, 46èmes Journées de Statistique de la Société Française de Statistique, Rennes, 2014.
- [90] C. Bouveyron, L. Jegou, Y. Jernite, S. Lamassé, P. Latouche & P. Rivera, *Un modèle de graphes aléatoires pour l'analyse d'un réseau ecclésiastique dans la Gaule mérovingienne*, 45èmes Journées de Statistique de la Société Française de Statistique, Toulouse, 2013.
- [91] A. Bellas, C. Bouveyron, M. Cottrell & J. Lacaille, *Clustering online de données en grande dimension par modélisation dans des sous-espaces*, 19ème rencontres de la Société Francophone de Classification, Marseille, 2012.
- [92] L. Bergé, C. Bouveyron & S. Girard, *HDclassif: An R Package for Model-Based Clustering and Discriminant Analysis of High-Dimensional Data*, 1ère Rencontres R, Bordeaux, 2012.
- [93] C. Bouveyron & C. Brunet, *Considérations théoriques sur la convergence de l'algorithme Fisher-EM*, 44èmes Journées de Statistique de la Société Française de Statistique, Bruxelles, Belgique, 2012.
- [94] C. Bouveyron, M. Fauvel & S. Girard, *Processus gaussiens parcimonieux pour la classification générative de données hétérogènes*, 44èmes Journées de Statistique de la Société Française de Statistique, Bruxelles, Belgique, 2012.
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