

# Gilbert Ritschard

NCCR LIVES and  
Institute of Demography and Socioeconomics (IDESO)  
University of Geneva  
CH-1211 Genève 4  
e-mail: gilbert.ritschard[at]unige.ch  
Personal page: <http://mephisto.unige.ch>

CV September 2015

## Education

- 1979 PhD in Economics and Social Sciences, major in Econometrics and Statistics, U. of Geneva
- 1975 MSc in Econometrics (Diplôme en économétrie), U. of Geneva
- 1973 BS in Economics (licence en sciences économiques), major in quantitative methods, U. of Geneva

## Academic positions

### *since August 2015*

Professor Emeritus (professeur honoraire) of the University of Geneva

- 1994/2015 Full Professor, Department of Sociology [since 2014] and Department of Economics (formerly Dpt of Econometrics) [until 2013], Geneva

- 1986/94 Associate Professor (professeur adjoint), Department of Econometrics, Geneva

- 1980/86 Assistant Professor (maître-assistant), Department of Econometrics, Geneva

- 1979/80 Professor, Department of Economics, Université du Québec à Montréal

- 1973/79 Research and Teaching Assistant, Department of Econometrics, Geneva

### *Invited Professor*

University Lumière Lyon 2 (2000, 01, 03, 04, 05), HEC, University of Lausanne (2000/01), Glendon College, York University, Toronto (1999), University of Fribourg (1986/87).

## Teaching and Research interests

Statistics for the social sciences, sequence analysis, event history analysis, longitudinal data and transition analysis, demography, categorical data analysis, statistical learning, data and text mining, application issues.

## Teaching

Beside basic descriptive and inferential statistics, I teach at the master level Applied statistics and probability, Quantitative methods, Statistical analysis of categorical data, Event history analysis, and Discrete sequential data analysis. I have also organized special modules, as for example on Event history analysis for the French

network of doctoral schools in population studies, on Sequential data for the PaVie doctoral school and on Methods for longitudinal data at the LIVES doctoral school.

Recently, I have been invited to give tutorials on sequence analysis at the University of Lund, Sweden (with C.Elzinga) in May 2008, at the EGC 2009 Conference in January 2009, at the University of Southern California in Los Angeles in 2009 and 2010 and in Davis in 2011 (with JJ McArdle), at the SFC 2010 Conference in June 2010, at the University of Lyon 2 in 2010, 2011 and 2012, at INED in Paris in 2011, at the Summer School in longitudinal and life course research in 2013, 2014, 2015, at the Centre for Demographic and Aging Research in Umeå in 2013, at IRDES in Paris in 2015.

I supervise PhD theses in statistics (Sequence data analysis, Categorical data modelling, Markov models, Extreme values) as well as in Computer science, Demography, Sociology, Socioeconomics, and Social history.

### Recent Funded Research

- Leader of the quantitative IP214 “Measuring vulnerability dynamics” of the NCCR “LIVES, Overcoming Vulnerability: Life Course Perspectives”, 2015-2018.
- Leader of the quantitative IP14 “Measuring Life Sequences and the Disorder of Lives” of the NCCR “LIVES, Overcoming Vulnerability: Life Course Perspectives”, 2010-2014.
- Main applicant (co-applicant Eric Widmer) for the SNF project “Mining event histories: Towards new insights on Swiss life courses”. FN-113998, 2007-09 and FN-122230, 2009-11.
- Co-applicant (main applicant Michel Oris) for the SNF project “Differential Mortality and Longevity in Switzerland, 1990-2004. From Social Structures to Social Resources”, FN-116416, 2007-2010.
- Co-applicant (main applicant Claudine Sauvain-Dugerdil) for the SNF project “Vulnérabilité et nouvelles compétences de la jeunesse malienne. Le double défi pour les jeunes et pour les institutions”. FN-109843. 2005-08.
- Co-leader with Lucio Baccaro (ILO) of the GIAN University of Geneva - ILO joint project on “Social Dialogue Regimes: Worker Rights, Collective Bargaining and Negotiated Policy Making”, 2005-06.
- INTERREG project on the French-Nyon-Geneva regional housing market, 2004-05.
- Co-applicant (main applicant Michel Oris) of the SNF project “Early Life Conditions, Social Mobility and Longevity in Later Life. A Contribution to the Urban Population History in 19th Century French-Speaking Switzerland”, FN-068113, 2003-2004, and FN-105478, 2005-06.

### Managerial activities

- Member of the LIVES board (steering committee) of the NCCR “LIVES, Overcoming Vulnerability: Life Course Perspectives”.
- Chair of the organizing committee of the International conference on sequence analysis and related methods (LaCOSA 2), to be held in Lausanne, June 8-10, 2016
- Vice-Dean of the Faculty of Economic and Social Sciences, 2007-2014.
- Head of the Laboratory of Applied Economics (since autumn 2009).

- Member of the Chair Board of the Institute for of Demographic and Life Course Studies (formerly Laboratory of Demography)
- Member of the Chair Board of the Center for Advanced Modeling Science (CADMOS) (2008-2010).
- Member of the Steering Committee of the EGC (Knowledge Discovery and Management) Association (since 2007) and of the Chair Board of EGC (2007-2010).

### Selection of Expertise Appointments

- Member of the Editorial board of
  - *International Journal of Data Mining, Modelling and Management*
  - *La Revue MODULAD*
- Co-chair of the Brochard Foundation Workshop on Exploratory Data Mining held in Le Château la Bretesche, France, in July 2010.
- Chair of the Scientific Program Committee of the EGC 2006 Conference in Lille.
- Chair of the Software Section of the EGC Association (2004-2005)
- Member of program committees
  - Western Ontario Summer School 2012.
  - IEEE International Conference on Granular Computing (GrC) 2011
  - Computational Statistics, Compstat 2006, 2008
  - International Conference on Intelligent Information System (IIS), 2005-2011
  - International Conference on Data Warehousing and Knowledge Discovery (DaWaK 2006-2008)
  - Extraction et gestion des connaissances (EGC) Conferences, 2001-2007
  - Practice of Knowledge Discovery from Databases (PKDD) conferences, 2000-2007
  - International Symposium on Methodologies for Intelligent Systems (ISMIS) 2002-2011
  - International conference on New Trends in Intelligent Information Processing and Web Mining (IIPWM) 2005, 2006
  - International Workshop on Interesting Knowledge Mining (IKM) 2009
  - Quality Issues, Measures of Interestingness and Evaluation of Data Mining Models (QIMIE) 2009-2011.
  - Société francophone de classification (SFC), 2001, 2003, 2007, 2010, 2011, 2013, 2014, 2015.
  - Conferences on Statistical Implication Analysis (ASI), 2005, 2007, 2010, 2012, 2014, 2015.
  - Journée fouille de données aux Journées de la Société francophone de statistique (2003).
  - Early Life Conditions and Longevity, Reconstructing Lives from Cradle to Grave, 2003 workshop
- Reviewer for *Computational Statistics & Data Analysis*, *Journal of Statistical Software*, *Sociological Methods & Research*, *Advances in Life Course Research*, *Longitudinal and Life Course Studies*, *Historical Life Course Studies*, *Journal of Population Ageing*, *European Journal of Population*, *Behavior Research Methods*, *Human Relations*, *International Review of Administrative Sciences*,

*Machine Learning, Journal of Machine Learning Research, Data Mining and Knowledge Discovery, International Journal of Data Mining, Modelling and Management, Revue des Nouvelles technologies de l'Information, International Journal of Neural Systems, Journal of Intelligent Information Systems, International Journal of Biomedical Engineering and Technology, BMC Health Services Research.*

- Expert for the European Collaborative Research Projects (ECRP), 2009
- Expert for the NWO (Dutch scientific fund), 2014
- Member of the Geneva Committee of the Latsis Prize (since 2008)

#### **Recent Invited Talks**

- Invited speaker at the 2014 Conference of the European Historical Demography Association, Alghero-Sardinia, September 2014.
- Keynote at the 'Rencontres R 2013', Lyon, June 2013.
- Keynote at Discovery Science, Lyon, June 2013.
- Invited speaker at the Ateliers Ouvertures du Céreq, Marseille, December 2011
- Keynote speaker at the SFC 2010 Conference, Saint-Denis de la Réunion, June 2010
- Keynote speaker at the 16th International conference on Intelligent Information Systems, June 2008, Zakopane, Poland
- Keynote speaker at the 2007 Meeting of the International Association for Statistical Computing, August 2007, Aveiro, Portugal
- Research seminar at the ERIC Laboratory, University Lyon 2, December 9, 2010
- IMA-FORS-MISC seminar on Methods and Research, University of Lausanne, November 3, 2009

## Publications since 2005

Most publications can be downloaded from <http://mephisto.unige.ch/gilbert/> or from the University of Geneva Open Archive <http://archive-ouverte.unige.ch/>

## Books

- [Bk-2] Losa, F. B., M. Bigotta, E. Stephani, and G. Ritschard, (2014). *D'où venons-nous? Que sommes-nous? Où allons-nous? Analyse des parcours professionnels des chômeurs de longue durée en Suisse*. Ufficio di Statistica, TI, Giubiasco.
- [Bk-1] Losa, F. B., M. Bigotta, E. Stephani, and G. Ritschard, (2012). *Da Dove Veniamo? Che Siamo? Dove Andiamo? Analisi delle traiettorie di vita dei disoccupati di lunga durata in Svizzera*. Ufficio di Statistica, TI, Belinzona (CH).

## Edited Books

- [Ed-4] McArdle, J. J. and G. Ritschard, editors, (2013). *Contemporary Issues in Exploratory Data Mining in the Behavioral Sciences*. Quantitative Methodology Series. Routledge, New York.
- [Ed-3] Guillet, F., G. Ritschard, and D. A. Zighed, editors, (2012). *Advances in Knowledge Discovery and Management: Volume 2*, volume 398 of *Studies in Computational Intelligence*. Springer, Berlin.
- [Ed-2] Guillet, F., G. Ritschard, D. A. Zighed, and H. Briand, editors, (2010). *Advances in Knowledge Discovery and Management*, volume 292 of *Studies in Computational Intelligence*. Springer, Berlin.
- [Ed-1] Ritschard, G. and C. Djeraba, editors, (2006). *Extraction et gestion des connaissances (EGC'2006)*, volume RNTI-E-6 (2 volumes) of *Revue des Nouvelles Technologies de l'Information*. Cépaduès.

## Articles, peer reviewed

- [Ar-15] Bürgin, R. and G. Ritschard, (2015). Tree-based varying coefficient regression for longitudinal ordinal responses. *Computational Statistics & Data Analysis*, 86:65–80.
- [Ar-14] Gabadinho, A. and G. Ritschard, (2015). Analysing state sequences with probabilistic suffix trees: the PST R library. *Journal of Statistical Software*. Forthcoming.
- [Ar-13] Studer, M. and G. Ritschard, (2015). What matters in differences between life trajectories: A comparative review of sequence dissimilarity measures. *Journal of the Royal Statistical Society, Series A*. (Early view).
- [Ar-12] Bürgin, R. and G. Ritschard, (2014). A decorated parallel coordinate plot for categorical longitudinal data. *The American Statistician*, 68(2):98–103.
- [Ar-11] Losa, F. B., M. Bigotta, E. Stephani, and G. Ritschard, (2012). Trajectoires des chômeurs de longue durée en Suisse - Une analyse de données AVS/AI. *Sécurité Sociale CHSS*, 4:224–228.
- [Ar-10] Bigotta, M., F. B. Losa, G. Ritschard, and E. Stephani, (2011). Le parcours professionnel des chômeurs de longue durée en suisse. *La Vie économique*, 7/8:51–54.
- [Ar-9] Gabadinho, A., G. Ritschard, N. S. Müller, and M. Studer, (2011). Analyzing and visualizing state sequences in R with TraMineR. *Journal of Statistical Software*, 40(4):1–37.
- [Ar-8] Studer, M., G. Ritschard, A. Gabadinho, and N. S. Müller, (2011). Discrepancy analysis of state sequences. *Sociological Methods and Research*, 40(3):471–510.
- [Ar-7] Oris, M., G. Ritschard, and O. Perroux, (2010). Growing religious pluralism in

- early nineteenth-century geneva: new methods for revealing hidden structures and dynamics from censuses. *Popolazione e Storia*, 11(2):43–58.
- [Ar-6] Widmer, E. and G. Ritschard, (2009). The de-standardization of the life course: Are men and women equal? *Advances in Life Course Research*, 14(1-2):28–39.
- [Ar-5] Ritschard, G., A. Gabadinho, N. S. Müller, and M. Studer, (2008). Mining event histories: A social science perspective. *International Journal of Data Mining, Modelling and Management*, 1(1):68–90.
- [Ar-4] Sauvain-Dugerdil, C., B. Gakou, F. Berthé, A. W. Dieng, G. Ritschard, and M. Lerch, (2008). The start of the sexual transition in Mali: Risks and opportunities. *Studies in Family Planning*, 39(4):263–280.
- [Ar-3] Oris, M., G. Ritschard, and G. Ryczkowska, (2006). Les solitudes urbaines. Structures et parcours dans la Genève des années 1816-1843. *Annales de démographie historique*, 111 - 2006/1:59–87.
- [Ar-2] Oris, M., G. Ritschard, and G. Ryczkowska, (2005). Siblings in a (neo-)Malthusian town. From cross-sectional to longitudinal perspectives. *Historical Social Research*, 30:171–194.
- [Ar-1] Zighed, D. A., G. Ritschard, W. Erray, and V.-M. Scuturici, (2005). Decision trees with optimal joint partitioning. *International Journal of Intelligent Systems*, 20(7):693–718.

#### Book Chapters, peer reviewed

- [Ch-35] Oris, M. and G. Ritschard, (2014). Sequence analysis and transition to adulthood: An exploration of the access to reproduction in nineteenth-century East Belgium. In Blanchard, P., F. Bühlmann, and J.-A. Gauthier, editors, *Advances in Sequence Analysis: Theory, Method, Applications*, volume 2 of *Life Course Research and Social Policies*, pages 151–170. Springer, Heidelberg.
- [Ch-34] Gabadinho, A. and G. Ritschard, (2013). Searching for typical life trajectories applied to childbirth histories. In Levy, R. and E. Widmer, editors, *Gendered life courses - Between individualization and standardization. A European approach applied to Switzerland*, pages 287–312. LIT, Vienna.
- [Ch-33] Oris, M., G. Ritschard, and O. Perroux, (2013). Le pluralisme religieux croissant à Genève dans la première moitié du XIXe siècle. une exploration des dynamiques sous-jacentes. In *L'apprentissage du pluralisme religieux. Le cas genevois au XIXe siècle*, pages 41–61. Labor et Fides, Genève.
- [Ch-32] Ritschard, G., (2013). CHAID and earlier supervised tree methods. In McArdle, J. J. and G. Ritschard, editors, *Contemporary Issues in Exploratory Data Mining in the Behavioral Sciences*, Quantitative Methodology, pages 48–74. Routledge, New York.
- [Ch-31] Ritschard, G., R. Bürgin, and M. Studer, (2013). Exploratory mining of life event histories. In McArdle, J. J. and G. Ritschard, editors, *Contemporary Issues in Exploratory Data Mining in the Behavioral Sciences*, Quantitative Methodology, pages 221–253. Routledge, New York.
- [Ch-30] Ritschard, G., F. B. Losa, and P. Origoni, (2013). Validating tree descriptions of women's labor participation with deviance-based criteria. In McArdle, J. J. and G. Ritschard, editors, *Contemporary Issues in Exploratory Data Mining in the Behavioral Sciences*, Quantitative Methodology, pages 128–149. Routledge, New York.
- [Ch-29] Widmer, E. and G. Ritschard, (2013). Life course changes in late modernity: towards destandardization and degendering? In Levy, R. and E. Widmer, editors, *Gendered life courses between individualization and standardization. A European approach applied to Switzerland*, pages 161–182. LIT, Vienna.
- [Ch-28] Widmer, E. and G. Ritschard, (2013). Parcours de vie : une pluralisation encadrée. In Burnay, N., S. Ertul, and J.-P. Melchior, editors, *Parcours sociaux et nouveaux desseins temporels*, volume 5 of *Investigations en anthropologie prospective*, pages 293–316. Academia-L'Harmattan.

- [Ch-27] Widmer, E. D. and G. Ritschard, (2013). Tous égaux devant la pluralisation des parcours de vie? Déstandardisation des trajectoires familiales et professionnelles et insertions sociales. In Gaudet, S., N. Burlone, and M. Lévesque, editors, *Repenser la famille et ses transitions*, Société et Population, pages 79–110. Les Presses de l’Université Laval, PUL, Québec.
- [Ch-26] Bürgin, R., G. Ritschard, and E. Rousseaux, (2012). Visualisation de séquences d’événements. *Revue des Nouvelles Technologies de l’Information (RNTI)*, E-23:559–560.
- [Ch-25] Ritschard, G., (2012). Exploring sequential data. In *Discovery Science*, volume LNAI 7569 of *Lecture Notes in Artificial Intelligence*, pages 2–6. Springer-Verlag, Berlin.
- [Ch-24] Gabadinho, A., G. Ritschard, M. Studer, and N. S. Müller, (2010). Indice de complexité pour le tri et la comparaison de séquences catégorielles. *Revue des nouvelles technologies de l’information RNTI*, E-19:61–66.
- [Ch-23] Müller, N. S., M. Studer, A. Gabadinho, and G. Ritschard, (2010). Analyse de séquences d’événements avec TraMineR. *Revue des nouvelles technologies de l’information RNTI*, E-19:639–640.
- [Ch-22] Müller, N. S., M. Studer, G. Ritschard, and A. Gabadinho, (2010). Extraction de règles d’association séquentielle à l’aide de modèles semi-paramétriques à risques proportionnels. *Revue des nouvelles technologies de l’information RNTI*, E-19:25–36.
- [Ch-21] Studer, M., N. S. Müller, G. Ritschard, and A. Gabadinho, (2010). Classer, discriminer et visualiser des séquences d’événements. *Revue des nouvelles technologies de l’information RNTI*, E-19:37–48.
- [Ch-20] Studer, M., G. Ritschard, A. Gabadinho, and N. S. Müller, (2010). Discrepancy analysis of complex objects using dissimilarities. In Guillet, F., G. Ritschard, D. A. Zighed, and H. Briand, editors, *Advances in Knowledge Discovery and Management*, volume 292 of *Studies in Computational Intelligence*, pages 3–19. Springer, Berlin.
- [Ch-19] Gabadinho, A., N. S. Müller, G. Ritschard, and M. Studer, (2009). TraMineR: une librairie R pour l’analyse de données séquentielles. *Revue des nouvelles technologies de l’information RNTI*, E-15:483.
- [Ch-18] Ritschard, G., A. Gabadinho, M. Studer, and N. S. Müller, (2009). Converting between various sequence representations. In Ras, Z. and A. Dardzinska, editors, *Advances in Data Management*, volume 223 of *Studies in Computational Intelligence*, pages 155–175. Springer, Berlin.
- [Ch-17] Ritschard, G., S. Marcellin, and D. A. Zighed, (2009). Arbre de décision pour données déséquilibrées: sur la complémentarité de l’intensité d’implication et de l’entropie. In Gras, R., J.-C. Régnier, and F. Guillet, editors, *Analyse Statistique Implicative: une méthode d’analyse de données pour la recherche de causalités*, volume E-16 of *Revue des Nouvelles Technologies de l’Information (RNTI)*, chapter 1.7, pages 207–221. Cépaduès, Toulouse.
- [Ch-16] Ritschard, G., M. Studer, and M. Oris, (2009). Analyse statistique implicative des transitions professionnelles dans la Genève du 19e siècle. In Gras, R., J.-C. Régnier, and F. Guillet, editors, *Analyse Statistique Implicative: une méthode d’analyse de données pour la recherche de causalités*, volume E-16 of *Revue des Nouvelles Technologies de l’Information (RNTI)*, chapter 2.7, pages 421–435. Cépaduès, Toulouse.
- [Ch-15] Studer, M., G. Ritschard, L. Baccaro, I. Georgiou, N. S. Müller, and D. A. Zighed, (2009). Relaciones entre tipos de violaciones de libertades sindicales garantizadas por los convenios de le oit: Un análisis estadístico implicativo de los resultados de un análisis automático de textos. In Orús, P., L. Zamora, and P. Gregori, editors, *Teoría y aplicaciones del Análisis Estadístico Implicativo*, pages 483–504. Departamento de Matemáticas, Universitat Jaume I de Castellón.
- [Ch-14] Studer, M., G. Ritschard, A. Gabadinho, and N. S. Müller, (2009). Analyse

de dissimilarités par arbre d'induction. *Revue des nouvelles technologies de l'information RNTI*, E-15:7–18.

- [Ch-13] Widmer, E., G. Ritschard, and N. S. Müller, (2009). Trajectoires professionnelles et familiales en Suisse: quelle pluralisation? In Oris, M. et al., editors, *Transitions dans le parcours de vie et construction des inégalités*, pages 253–272. Presses Polytechniques Universitaires Romandes, Lausanne.
- [Ch-12] Marcellin, S., D. A. Zighed, and G. Ritschard, (2008). Evaluating decision trees grown with asymmetric entropies. In An, A., S. Matwin, Z. W. Ras, and D. Slezak, editors, *Foundations of Intelligent Systems, ISMIS08, Proceedings of the ISMIS Conference, Toronto, May 20-23, 2008*, volume LNAI 4994 of *Lecture Notes in Computer Science*, pages 58–67. Springer.
- [Ch-11] Müller, N. S., S. Lespinats, G. Ritschard, M. Studer, and A. Gabadinho, (2008). Visualisation et classification des parcours de vie. *Revue des nouvelles technologies de l'information RNTI*, E-11, II:499–510.
- [Ch-10] Ritschard, G., V. Pisetta, and D. A. Zighed, (2008). Inducing and evaluating classification trees with statistical implicative criteria. In Gras, R., E. Suzuki, F. Guillet, and F. Spagnolo, editors, *Statistical Implicative Analysis: Theory and Applications*, volume 127 of *Studies in Computational Intelligence*, pages 397–420. Springer-Verlag, Berlin.
- [Ch-9] Studer, M., A. Gabadinho, N. S. Müller, and G. Ritschard, (2008). Approches de type n-grammes pour l'analyse de parcours de vie familiaux. *Revue des nouvelles technologies de l'information RNTI*, E-11(2):511–522.
- [Ch-8] Pisetta, V., G. Ritschard, and D. A. Zighed, (2007). Choix des conclusions et validation des règles issues d'arbres de classification. *Revue des nouvelles technologies de l'information RNTI*, E-9:485–496.
- [Ch-7] Ritschard, G. and C. Sauvain-Dugerdil, (2007). L'enfant ciment du couple ou le couple comme ciment de la relation du père à l'enfant? Quelques enseignements de l'enquête rétrospective du Panel Suisse de Ménages. In Burton-Jeangros, C., E. Widmer, and C. Lalive d'Epinay, editors, *Interactions familiales et constructions de l'intimité.*, coll. Questions sociologiques, pages 57–73. L'Harmattan, Paris.
- [Ch-6] Zighed, D. A., S. Marcellin, and G. Ritschard, (2007). Mesure d'entropie asymétrique et consistante. *Revue des nouvelles technologies de l'information RNTI*, E-9:81–86.
- [Ch-5] Sauvain-Dugerdil, C., G. Ritschard, and A. W. Dieng, (2006). Socio-démographie des phases tardives de la vie familiale. In *Soigner, garder et payer. La famille et les phases tardives de la vie*, pages 35–68. Commission fédérale de coordination pour les questions familiales, COFF, Berne.
- [Ch-4] Losa, F. B., P. Origoni, and G. Ritschard, (2005). Usage non classificatoire d'arbres de classification, Enseignements d'une analyse de la participation féminine à l'emploi en suisse. *Revue des nouvelles technologies de l'information RNTI*, E-3:7–18.
- [Ch-3] Ritschard, G., (2005). Arbre BIC optimal et taux d'erreur. In Cloppet, F., J.-M. Petit, and N. Vincent, editors, *Extraction des connaissances : Etat et perspectives*, volume E-5, pages 403–408. Cépaduès.
- [Ch-2] Ritschard, G., (2005). Implication citoyenne, loisirs et études: le cas des étudiants de sciences sociales. In Widmer, E., D. Royer, B. Bürgenmeier, and F. Schultheis, editors, *Théorie et pratique de la démocratie, essais en l'honneur du professeur Yves Fricker*, pages 213–232. Economica, Paris.
- [Ch-1] Ritschard, G. and M. Oris, (2005). Life course data in demography and social sciences: Statistical and data mining approaches. In Levy, R., P. Ghisletta, J.-M. Le Goff, D. Spini, and E. Widmer, editors, *Towards an Interdisciplinary Perspective on the Life Course*, volume 10 of *Advances in Life Course Research*, pages 289–320. Elsevier, Amsterdam.

**Other Invited Talks, Tutorials, ...**



- [In-2] Ritschard, G., (2014). Promises and requirements of recent development in sequence analysis. In *Conference of the European Society of Historical Demography, Alghero-Sardinia, September 25-27, 2014*, (2014). Invited Talk.
- [In-1] Ritschard, G., (2013). TraMineR: A toolbox for exploring and rendering sequence data. In *2èmes Rencontres R, Montpellier, France*, (2013).

#### Papers at International Conferences, peer reviewed

- [IC-28] Ritschard, G., M. Studer, and E. Rousseaux, (2014). Experiences with some longitudinal exploratory data mining problems. In *21st International Conference on Computational Statistics (COMPSTAT 2014), Geneva, August 19-22*, (2014).
- [IC-27] Rousseaux, E., M. Deville, and G. Ritschard, (2014). The SPNET package: Plotting social networks on maps with R. In *3èmes Rencontres R, Montpellier, France*, (2014).
- [IC-26] Rousseaux, E. and G. Ritschard, (2014). An association rule miner for unbalanced data based on artificial bee colony optimization. In *21st International Conference on Computational Statistics, Geneva, Switzerland*, (2014).
- [IC-25] Bürgin, R. and G. Ritschard, (2013). Model trees for ordinal sequences. In *73rd Annual Meeting of the Academy of Management, August 9-13, 2013, Orlando, Florida*, (2013).
- [IC-24] Bürgin, R. and G. Ritschard, (2013). New methodologies for career studies – Model trees for ordinal sequences. In *Symposium on Applying Sequence Analysis in Career & HRM Research: Opportunities, Challenges and New Perspectives. 73rd Annual Meeting of the Academy of Management, AOM, Orlando, Florida USA, August 2013*, (2013).
- [IC-23] Bürgin, R. and G. Ritschard, (2013). Tree-based method for varying coefficients in ordinal regression models with random effects. In *6th International Conference of the ERCIM WG on Computational and Methodological Statistics (ERCIM 2013), Senate House, University of London, UK, 14-16 December 2013*, (2013).
- [IC-22] Ritschard, G. and M. Studer, (2013). Mining life event sequences. In *Society For Longitudinal and Life Course Studies International Conference, Amsterdam, September 23-25, 2013*, (2013).
- [IC-21] Rousseaux, E., D. Bolano, and G. Ritschard, (2013). The Rsocialdata package: Handling survey data in R. In *Proceedings of the XXVII IUSSP International Population Conference, Busan, Republic of Korea*.
- [IC-20] Bürgin, R., G. Ritschard, and E. Rousseaux, (2012). Exploration graphique de données séquentielles. In *Atelier Fouille Visuelle de Données : méthodologie et évaluation, EGC 2012, Bordeaux*, pages 39–50. Association EGC.
- [IC-19] Rousseaux, E. and G. Ritschard, (2012). The dataset project: handling survey data in R. In *Lausanne Conference on Sequence Analysis LACOSA, Lausanne*. poster.
- [IC-18] Dribe, M., M. Manfredini, M. Oris, and G. Ritschard, (2010). Pathways to reproduction in pre-transitional Europe: A sequential approach. In *35th Annual Meeting of the Social Science History Association, Chicago, November 18-21*, (2010).
- [IC-17] Oris, M., M. Dribe, M. Mandredini, and G. Ritschard, (2010). Access to reproduction in pre-transitional Europe: A sequential approach. In *Workshop on Marriage Patterns, Household Formation and Economic Development, Utrecht, October 7-9, 2010*, (2010).
- [IC-16] Gabadinho, A., G. Ritschard, M. Studer, and N. S. Müller, (2009). Summarizing sets of categorical sequences. In *International Conference on Knowledge Discovery and Information Retrieval, Madeira, 6-8 October, 2009*, pages 62–69. INSTICC. (Received the Best Paper Award).
- [IC-15] Müller, N. S., A. Gabadinho, G. Ritschard, and M. Studer, (2008). Extracting knowledge from life courses: Clustering and visualization. In Song, I.-Y., J. Eder,

- and T. M. Nguyen, editors, *Data Warehousing and Knowledge Discovery, 10th International Conference, DAWAK 2008, Turin, Italy, September 2-5*, volume LNCS 5182 of *Lectures Notes in Computer Science*, pages 176–185. Springer, Berlin Heidelberg.
- [IC-14] Ritschard, G., M. Studer, and V. Pisetta, (2008). Strategies in identifying issues addressed in legal reports. In Brito, P., editor, *COMPSTAT 2008 - Proceedings in Computational Statistics*, pages 277–288. Springer, Berlin.
- [IC-13] Müller, N. S., M. Studer, and G. Ritschard, (2007). Classification de parcours de vie à l'aide de l'optimal matching. In *XIVe Rencontre de la Société francophone de classification (SFC 2007), Paris, 5 - 7 septembre 2007*, pages 157–160, (2007).
- [IC-12] Oris, M. and G. Ritschard, (2007). Dynamique socioprofessionnelle dans la Genève du 19e, enseignements d'une analyse de statistique implicative. In Gras, R., P. Orús, B. Pinaud, and P. Gregori, editors, *Nouveaux apports théoriques à l'analyse statistique implicative et applications, ASI4, Castellón de la Plana (España), 18-21 octobre 2007*, pages 287–300. Departament de Matemàtiques, Universitat Jaume I.
- [IC-11] Ritschard, G., (2007). Mining event histories: A social scientist view. In *IASC 2007 Conference on Statistics for data mining, learning and knowledge extraction, Aveiro, Portugal, August 30 - September 1, 2007*, (2007). on CDROM.
- [IC-10] Ritschard, G., D. A. Zighed, and S. Marcellin, (2007). Données déséquilibrées, entropie décentrée et indice d'implication. In Gras, R., P. Orús, B. Pinaud, and P. Gregori, editors, *Nouveaux apports théoriques à l'analyse statistique implicative et applications, ASI4, Castellón de la Plana (España), 18-21 octobre 2007*, pages 315–327. Departament de Matemàtiques, Universitat Jaume I.
- [IC-9] Studer, M., G. Ritschard, L. Baccaro, N. S. Müller, and D. A. Zighed, (2007). Relations entre types de violation des libertés syndicales garanties par les conventions de l'OIT: une analyse de statistique implicative des résultats d'une fouille de texte. In Gras, R., P. Orús, B. Pinaud, and P. Gregori, editors, *Nouveaux apports théoriques à l'analyse statistique implicative et applications, ASI4, Castellón de la Plana (España), 18-21 octobre 2007*, pages 111–122. Departament de Matemàtiques, Universitat Jaume I.
- [IC-8] Losa, F. B., P. Origoni, and G. Ritschard, (2006). Experiences from a socio-economic application of induction trees. In Todorovski, L., N. Lavrač, and K. P. Jantke, editors, *Discovery Science, 9th International Conference, DS 2006, Barcelona, October 7-10, 2006, Proceedings*, volume LNAI 4265, pages 311–315. Springer, Berlin Heidelberg.
- [IC-7] Marcellin, S., D. A. Zighed, and G. Ritschard, (2006). An asymmetric entropy measure for decision trees. In *11th Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems, IPMU 2006*, pages 1292–1299, Paris, France.
- [IC-6] Marcellin, S., D. A. Zighed, and G. Ritschard, (2006). Detection of breast cancer using an asymmetric entropy measure. In Rizzi, A. and M. Vichi, editors, *COMPSTAT 2006 - Proceedings in Computational Statistics*, pages 975–982. Springer, Berlin. (on CD).
- [IC-5] Oris, M., G. Ritschard, and G. Ryczkowska, (2006). Recrutement et renouvellement des groupes socioprofessionnels à Genève, 1816-1843. In *14e Colloque de l'Association Internationale des Démographes de Langue Française AIDELF, Aveiro, 18-22 septembre 2006*, pages 791–805, Aveiro. Université d'Aveiro et AIDELF.
- [IC-4] Pisetta, V., H. Hacid, F. Bellal, G. Ritschard, and D. A. Zighed, (2006). Traitement automatique de textes juridiques. In Lehn, R., M. Harzallah, N. Aussenac-Gilles, and J. Charlet, editors, *Actes de SdC 2006, Semaine de la Connaissance, 26-30 juin 2006*, Nantes, France. (CDrom et sdc2006.org).
- [IC-3] Ritschard, G., (2006). Computing and using the deviance with classification trees. In Rizzi, A. and M. Vichi, editors, *COMPSTAT 2006 - Proceedings in Computational Statistics*, pages 55–66. Springer, Berlin.

- [IC-2] Ritschard, G. and D. A. Zighed, (2006). Implication strength of classification rules. In Esposito, F., Z. W. Ras, D. Malerba, and G. Semeraro, editors, *Foundations of Intelligent Systems, ISMIS06, Proceedings of the ISMIS Conference, Bari, September 26-29, 2006*, volume LNAI 4203, pages 463–472. Springer, Berlin.
- [IC-1] Ritschard, G., (2005). De l’usage de la statistique implicative dans les arbres de classification. In Gras, R., F. Spagnolo, and J. David, editors, *Actes des Troisièmes Rencontres Internationale ASI Analyse Statistique Implicative*, volume Secondo supplemento al N.15 of *Quaderni di Ricerca in Didattica*, pages 305–314. Università degli Studi di Palermo, Palermo.

### Other Conference Papers

- [CO-11] Rousseaux, E. and G. Ritschard, (2013). The Dataset project: Handling survey data in R. In *7th International Conference of Panel Data Users in Switzerland, Lausanne*, pages 37–38, (2013).
- [CO-10] Bürgin, R. and G. Ritschard, (2012). Categorical parallel coordinate plot. In *Lausanne Conference on Sequential Analysis LACOSA*, Lausanne. Poster.
- [CO-9] Oris, M., M. D. M. Manfredini, and G. Ritschard, (2012). Access to reproduction in pre-transitional europe: A sequential approach. In *Lausanne Conference on Sequential Analysis LACOSA*, Lausanne.
- [CO-8] Ritschard, G., R. Bürgin, and M. Studer, (2012). Exploring the sequencing and timing of life events. In *Lausanne Conference on Sequential Analysis LACOSA*, Lausanne.
- [CO-7] Ritschard, G., (2009). Highlighting changes and differences in 20th century Swiss life trajectories with TraMineR. In *Swiss Statistical Meeting, Geneva, October 28-30, 2009*, (2009).
- [CO-6] Marcellin, S., D. A. Zighed, and G. Ritschard, (2008). Evaluation des critères asymétriques pour les arbres de décision. In Lallich, S., P. Lenca, and F. Guillet, editors, *Actes du 4e atelier Qualité des données et des connaissances (QDC 2008)*, Nice, pages 31–38, (2008).
- [CO-5] Ritschard, G., A. Gabadinho, N. Müller, and M. Studer, (2007). Innovative data mining based approaches for life course analysis. In *4th International Conference of Panel Data Users in Switzerland (IPUC07), Neuchâtel, February 23-24, 2007*, page 17, (2007).
- [CO-4] Ritschard, G., M. Studer, N. Müller, and A. Gabadinho, (2007). Comparing and classifying personal life courses: From time to event methods to sequence analysis. In *2nd Symposium of COST Action C34 (Gender and Well-Being). The Transmission of Well-Being: Marriage Strategies and Inheritance Systems in Europe from 17th-20th Centuries. University of Minho, Guimaraes, Portugal, April 25-28, 2007*, (2007).
- [CO-3] Studer, M., N. S. Müller, and G. Ritschard, (2007). Understanding the KDE social structure through mining of email archive. In *2nd Workshop on Public Data about Software Development (WoPDaSD 2007), Third International Conference on Open Source Systems (OSS), June 11-14, 2007, Limerick, Ireland*, (2007).
- [CO-2] Oris, M., G. Ritschard, and G. Ryczkowska, (Janvier 2005). Solitude et vulnérabilité dans les trajectoires de vie féminines, Genève, 1816-1843. In *Colloque Itinéraires féminins*, Paris. Société de Démographie Historique.
- [CO-1] Sauvain-Dugerdil, C. and G. Ritschard, (2005). Temps non structuré et espaces de vie: risques ou opportunités d’une nouvelle liberté? Enquête auprès de jeunes maliens. In *UIESP, XXVè Congrès International de la Population, 18-23 juillet 2005*, Tours.

### Lecture Notes

- [LN-1] Ritschard, G., A. Gabadinho, N. S. Müller, and M. Studer, (2009). Tutoriels: Données séquentielles, (I) concepts et (II) pratique dans R avec TraMineR. Brochure des dias, Conférence EGC, Strasbourg.

**Miscellanea**

- [Mi-13] Bolano, D., A. Berchtold, and G. Ritschard, (2015). Analyzing life course data with markovian models. (under evaluation).
- [Mi-12] Bürgin, R. and G. Ritschard, (2015). `vcrpart`: Tree-based varying coefficients regression for ordinal mixed and generalized linear regression models. Reference manual, CRAN. R package version 0.3-3.
- [Mi-11] Gabadinho, A., N. S. Müller, M. Studer, R. Bürgin, and G. Ritschard, (2015). Package `TraMineR`. Reference manual, CRAN. version 1.8.10.
- [Mi-10] Ritschard, G., M. Studer, R. Bürgin, A. Gabadinho, N. S. Müller, and P. Rousset, (2015). Package `TraMineRextras`. Reference manual, CRAN. version 0.2.4.
- [Mi-9] Studer, M., S. Hadziabdic, and G. Ritschard, (2015). Analyse des trajectoires des chômeurs en fin de droits dans le Canton de Genève. Rapport final, Institut d'études démographiques et du parcours de vie, Université de Genève.
- [Mi-8] Bürgin, R., R. Schumacher, and G. Ritschard, (2014). The transition of the sequencing of family life events in Europe during the second half of the 20th century: a cross-regional perspective. (In revision).
- [Mi-7] Studer, M. and G. Ritschard, (2014). A comparative review of sequence dissimilarity measures. LIVES Working Papers 33, NCCR LIVES, Switzerland.
- [Mi-6] Bürgin, R. and G. Ritschard, (2013). Rendering the order of life events. LIVES Working Papers 29, NCCR LIVES, Switzerland.
- [Mi-5] Ritschard, G., (2010). CHAID and earlier supervised tree methods. Cahiers du Département d'économétrie 2010.02, University of Geneva.
- [Mi-4] Gabadinho, A., G. Ritschard, M. Studer, and N. S. Müller, (2009). Mining sequence data in R with `TraMineR`: A user's guide. Technical report, Department of Econometrics and Laboratory of Demography, University of Geneva, Geneva. (`TraMineR` is on CRAN the Comprehensive R Archive Network).
- [Mi-3] Ritschard, G., L. Baccaro, J.-M. Bonvin, and D. A. Zighed, (2007). Social dialogue regimes: An investigation in the structural determinants and socio-economic outcomes of negotiated regulation. Final report, University of Geneva and ILO International Institute of Labor Studies, Geneva.
- [Mi-2] Ritschard, G., D. A. Zighed, L. Baccaro, I. Georgiou, V. Pisetta, and M. Studer, (July 2007). Mining expert comments on the application of ILO Conventions on freedom of association and collective bargaining. Working Papers 2007.02, Department of Econometrics of the University of Geneva.
- [Mi-1] Corbet, G., G. Ritschard, D. A. Zighed, M. Charpe, and H. Hacid, (2005). Etudes de l'interdépendance des marchés immobiliers résidentiels sur le bassin franco-valdo-genevois, Rapport final. Projet Interreg IIIA France-Suisse 29/BL/1.1/5, Université de Genève et Université de Lyon 2, Genève et Lyon.