

1. CURRICULUM VITAE

Madalina Olteanu

Date et lieu de naissance 14 septembre 1978, Braila, Roumanie.
Situation familiale Mariée, deux enfants.
Nationalité Franco-Roumaine.
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Cursus professionnel

- 2007 - ...** Maîtresse de conférences en mathématiques appliquées à l'Université Paris 1 Panthéon Sorbonne et membre du laboratoire SAMM, EA 4543.
- 2017 - 2019** Délégation de recherche au sein de l'unité MaIAGE, INRA, Jouy en Josas.
- 2017** Bénéficiaire d'un CRCT, de janvier à juin.
- 2007** Court séjour post-doctoral (quatre mois) au sein de l'unité MIA, INRA, Jouy en Josas.
- 2005-2007** ATER à mi-temps, Université Paris 1 Panthéon Sorbonne.
- 2002-2005** Allocataire de recherche à l'Université Paris 1 Panthéon Sorbonne et monitrice d'enseignement à l'Université Paris Descartes.

Formation et titres universitaires

- 2019** Habilitation à diriger des recherches en mathématiques appliquées, intitulée "*Some reflections about time, durations and transitions when mining complex data. A statistical perspective*", soutenue le 10 décembre 2019 devant le jury composé de Jean-Marc Bardet (garant), Mark Handcock et Anne Ruiz-Gazen (rapporteurs), Christophe Biernacki, Céline Lévy-Leduc, Mathilde Mougeot et Fabrice Rossi (examineurs). Université Paris 1 Panthéon Sorbonne.
- 2006** Doctorat en mathématiques appliquées avec la thèse intitulée "*Modèles à changements de régime, applications aux données financières*", soutenue le 13 décembre 2006 devant le jury composé de Marie Cottrell et Joseph Rynkiewicz (directeurs), Jian-Feng Yao et Jean-Marc Azaïs (rapporteurs), Patrice Gaubert, Marc Lavielle et Elisabeth Gassiat (examineurs). Université Paris 1 Panthéon Sorbonne. Mention très honorable.
- 2002** DEA en mathématiques, spécialité Statistique et modèles aléatoires en économie et finance. Universités Paris 1 - Paris 7. Mention bien.
- 2001** Maîtrise de mathématiques, spécialité Mathématiques appliquées. Université de Bucarest. Mention très bien.
- 2000-2001** Bourse d'études de six mois à l'Université de Grenade (octobre - février).
- 1997** Baccalauréat, spécialité mathématiques et physique, mention très bien. Obtenu au lycée N. Balcescu, Braila, Roumanie.

2. ACTIVITÉ SCIENTIFIQUE : ANIMATION, PROJETS, ENCADREMENT

Encadrement et participation à des jurys de thèse

A. Doctorat

Alex Mourer	2019 - ...	Co-encadré avec Marie Chavent (INRIA et Université de Bordeaux). Thèse financée via un contrat CIFRE par Safran Aircraft Engines.
Dafne Garcia	2018 - ...	Co-encadrée avec Sira Allende Alonso (Université de la Havane).
Clément Laroche	2018 - ...	Co-encadré avec Fabrice Rossi (Université Paris Dauphine). Thèse financée par l'ANSES.
Cynthia Faure	2015 - 2018	Co-encadrée avec Jean Marc Bardet (Université Paris 1). Thèse financée par Safran Aircraft Engines, soutenue en septembre 2018. <i>Change-point detection and identification of causes in turbojet engine operation during flights and test benches.</i>

B. Post-doctorat

Julien Boelaert	2014	Co-encadré avec Nathalie Vialaneix (MIA-T, INRA). <i>Implémentation du package R SOMbrero</i>
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C. Stages de M2

Kevin Pame M2 Statistiques Université Paris 5	Mars-Août 2018	Co-encadré avec Elisabeta Vergu (MaIAGE, INRA) <i>Clustering dans un grand graphe dynamique.</i>
Laura Bendhaiba PolyTech'Lille	Mars-Juillet 2013	Co-encadrée avec Nathalie Vialaneix (MIA-T, INRA) <i>Implémentation du package R SOMbrero.</i>
James Ridgway ENSAE, Parcours Statistique	Juin-Octobre 2011	<i>Chaînes de Markov cachées pour séries temporelles à valeurs entières</i>
Sébastien Massoni M2 Econométrie Université Paris 1	Juin-Septembre 2008	<i>Analyse des trajectoires d'insertion professionnelle.</i>

Les stagiaires que je mentionne ici sont uniquement ceux que j'ai encadrés ou co-encadrés en leur consacrant un investissement temps conséquent, et dont le travail a donné lieu à des publications scientifiques. Par ailleurs, je suis amenée tous les ans à être tutrice de stage ou d'alternance pour trois à quatre étudiants de M2, mais cet encadrement sera mentionné dans la partie résumant les activités pédagogiques. De même pour l'encadrement de mémoires de M1 ou de M2.

D. Jurys de thèse de doctorat

C. Faure Université Paris 1	Septembre 2018	Co-directrice <i>Détection de ruptures et identification d'événements dans le fonctionnement des turbo-réacteurs en vol et sur banc d'essai</i> . Encadrée par J-M. Bardet et moi-même.
I. Gorynin Université Paris Saclay	Décembre 2017	Examinatrice <i>Bayesian state estimation in partially observed Markov processes</i> . Encadré par W. Pieczynski et E. Monfrini.
E. Garcia-Garaluz Université de Malaga	Avril 2014	Rapportrice <i>Mathematical modeling of dynamical systems in epidemiology</i> . Encadrée par M. Atencia et G. Joya.
A. Sorjamaa Université d'Aalto	Septembre 2010	Rapportrice <i>Assessment of spatio-temporal data bases : time series prediction and missing value problem</i> . Encadré par A. Lendasse.

Projets financés

- 2020-2023** *Digital anthropology : bringing social data science in the spotlight*
Projet de chaire Unesco, financé par la Fondation Paris 1 et Telmar Peaktime.
Porteur du projet.
- 2019-2020** *Socio-spatial dynamics in large cities : from new mathematical models to new multidisciplinary perspectives*. Projet financé par Partenariats Hubert Curien (PHC), Campus France.
Co-responsable avec Sira Allende Alonso (Universidad de la Habana, Cuba).
- 2019-2022** *Variable importance and variable selection for high-dimensional clustering in an industrial context*
Projet financé par Safran Aircraft Engines.
Co-responsable avec Marie Chavent (INRIA, Bordeaux).
- 2018-2020** *Temporality as a multidisciplinary approach*
Projet financé par Université Paris 1 Panthéon Sorbonne.
Co-responsable avec Stéphane Lamassé (Université Panthéon Sorbonne).
- 2018-2020** *Migrations, segregation(s), integration(s)*
Projet financé par Université Panthéon Sorbonne.
Co-responsable avec Julien Randon-Furling (Université Panthéon Sorbonne).
- 2018-2021** *Feasibility study : phytopharmacovigilance (PPV) data mining. Creation of a tool for detecting emersions for the PPV*. Projet financé par l'ANSES.
Co-responsable avec Fabrice Rossi (Université Paris Dauphine).
- 2017-2021** *CADENCE : spread of epidemic processes on dynamical networks of animal movements with application to cattle in France*
Projet ANR. Porteur : Elisabeta Vergu (MaIAGE, INRA).
- 2014-2017** *Change-point detection and identification of causes in turbojet engine operation during flights and test benches*. Projet financé par Safran Aircraft Engines.
Co-responsable avec Jean-Marc Bardet (Université Panthéon Sorbonne).
- 2013-2014** *Temporality as a multidisciplinary approach*
Projet financé par Université Paris 1 Panthéon Sorbonne.
Co-responsable with Stéphane Lamassé (Université Panthéon Sorbonne).

Animation et participation à la vie collective de la recherche

Rapporteur régulier pour des journaux : Annals of Applied Statistics, Journal of Applied Probability/Advances in Applied Probability, Computational Statistics and Data Analysis, Journal of Multivariate Analysis, Sociological Methods and Research, IEEE Transactions on Neural Networks and Learning Systems, Neural Computation and Applications, Neural Processing Letters, Neural Networks, International Journal of Forecasting, Urban Studies, Computational Economics, Neurocomputing.

Membre du comité technique de conférences internationales et rapporteur régulier : IJCNN (International Joint Conference on Neural Networks), NC²(New Challenges in Neural Computation), LaCOSA II (International Conference on Sequence Analysis and Related Methods), WSOM+ (Workshop on Self Organizing Maps), ESANN (European Symposium on Artificial Neural Networks), IWANN (International Work Conference on Artificial Neural Networks), ICOR (International Conference on Operations Research), MASHS (Modèles et apprentissage en sciences humaines et sociales).

Organisation de conférences et séminaires

- Décembre 2019** *Challenging the time issue in modeling complex data from humanities and social sciences*, Session spéciale, CM Statistics, Londres.
- Juin 2017** *12th International Workshop on Self-Organizing Maps and Learning Vector Quantization, Clustering and Data Visualization (WSOM+)*, Co-organisé avec J-C. Lamirel (LORIA, Nancy) et M. Cottrell (Université Paris 1 Panthéon Sorbonne) à Nancy, France.
- 2014** *Temporalité : perceptions et analyses*, une série de six demi-journées interdisciplinaires. Co-organisé avec S. Lamassé (Université Paris 1 Panthéon Sorbonne).
- Juin 2012** *Modeling and statistical learning in humanities and social sciences (MASHS 2012)*, Co-organisé avec N. Vialaneix (MIA, INRA) et M. Cottrell (Université Paris 1).
- Octobre 2011** *Trajectories'11*. Co-organisé avec P. Rousset (CEREQ, France).
- Septembre 2010** *Statistical learning*, Session spéciale pour les “Journées MAS de la SMAF” . Bordeaux, France.
- Juin 2009** *Modeling and data analysis in biomedical systems*, Session spéciale au International Workshop on Artificial Neural Networks (IWANN 2009). Co-organisé avec E. Garcia (Universidad de Malaga, Spain) à Salamanca.
- Juin 2008** *Modeling and statistical learning in humanities and social sciences (MASHS 2008)*, Co-organisé avec P. Gaubert (Université Paris Créteil).

La liste des conférences invitées est attachée à la liste des publications. En revanche, j’ai fait le choix de ne pas donner la liste détaillée des différents séminaires dans lesquels je suis intervenue afin de ne pas alourdir le document.

Divers

Bénéficiaire de la PEDR depuis 2015.

Membre du groupe de travail “Le temps long”, Labex Dynamite, depuis 2016.

Fellow de l’Institut Convergences “Migrations”, depuis 2018.

7. LISTE DE PUBLICATIONS

A. Articles dans des journaux

- MO1. M. Olteanu, A. Hazan, M. Cottrell, J. Randon-Furling, “Multidimensional urban segregation : towards a neural network measure”, 2019, *Neural Computing and Applications*, Vol. 31(6), p.1-13.
- MO2. M. Olteanu, J. Randon-Furling, W. A. Clark, “Segregation through the multiscale lens”, 2019, *Proceedings of the National Academy of Sciences*, Vol. 116(25), p.11250-12254.
- MO3. J. Randon-Furling, M. Olteanu, A. Lucquiaud, “From urban segregation to spatial structure detection”, 2018, *Environment and Planning B : Urban Analytics and City Science*.
- MO4. M. Cottrell, M. Olteanu, F. Rossi, N. Villa-Vialaneix, “Self-organizing maps, theory and applications”, 2018, *Revista Investigacion Operacional*, Vol. 39(1), p. 1-22.
- MO5. J. Alerini, M. Olteanu, J. Ridgway, “Markov and the Duchy of Savoy : segmenting a century with regime-switching models”, 2017, *Journal de la Société Française de Statistique*, Vol. 158(2), p.89-117.
- MO6. J. Mariette, M. Olteanu, N. Villa-Vialaneix, “Efficient interpretable variants of online SOM for large dissimilarity data”, 2017, *Neurocomputing*, Vol. 225, p. 31-48.
- MO7. M. Olteanu, N. Villa-Vialaneix, “Using SOMbrero for clustering and visualizing graphs”, 2015, *Journal de la Société Française de Statistique*, Vol. 156(3), p.95-119.
- MO8. M. Olteanu, N. Villa-Vialaneix, “On-line relational and multiple relational SOM”, 2015, *Neurocomputing*, Vol. 147, p.15-30.
- MO9. M. Olteanu, V. Nicolas, B. Schaeffer, C. Denys, A. Missouf, J. Kennis and C. Laredo, “Nonlinear projection methods for visualizing Barcode data and application on two data sets”, 2013, *Molecular Ecology Resources*, Vol.13(6), p.976-990.
- MO10. M. Cottrell, M. Olteanu, F. Rossi, J. Rynkiewicz, N. Villa-Vialaneix, “Neural networks for complex data”, 2012, *KI - Künstliche Intelligenz*, Vol.26, p.373-380.
- MO11. M. Olteanu, J. Rynkiewicz, “Asymptotic properties of autoregressive regime-switching models”, 2012, *ESAIM P&S*, Vol. 16, p.25-47.
- MO12. M. Olteanu, J. Rynkiewicz, “Asymptotic properties of mixture-of-experts models”, 2011, *Neurocomputing*, Vol.74(9), p.1444-1449.
- MO13. F. Austerlitz, K. Bleakley, M. Olteanu, O. David, C. Laredo, R. Leblois, B. Schaeffer, M. Veuille, “DNA barcode analysis : comparing phylogenetic and statistical classification methods”, 2009, *BMC Bioinformatics*, Vol. 10(14).
- MO14. M. Olteanu, J. Rynkiewicz, “Estimating the number of components in a mixture of multilayer perceptrons”, 2008, *Neurocomputing*, Vol.71(7-9), p.1321-1329.
- MO15. M.T. Boyer-Xambeu, G. Deleplace, P. Gaubert, L. Gillard, M. Olteanu, “The periodization of the international bimetalism : 1821-1873”, 2007, *Revista Investigacion Operacional*, Vol.28(2), p.143-156.
- MO16. M. Olteanu, “A descriptive method to evaluate the number of regimes in a switching autoregressive model”, 2006, *Neural Networks*, Vol.19, p. 963-972.
- MO17. B. Maillet, M. Olteanu, J. Rynkiewicz, “Caractérisation des crises financières à l’aide de modèles hybrides (HMC-MLP)”, 2004, *Revue d’économie politique*, Vol. 4, p. 489-506.

B. Articles soumis ou en fin de rédaction

- MO18. M. Olteanu, C. de Bézenac, J. Randon-Furling, W. A. Clark, “Revealing multiscale segregation effects from fine-scale data. A case study of two communities in Paris”, soumis.
- MO19. M. Chavent, J. Lacaille, A. Mourer, M. Olteanu, “Sparse k -means for mixed data via group-sparse clustering”, soumis.
- MO20. J. Alerini, M. Olteanu, “Exploring a century of Savoy history using hidden Markov-models with Beta-inflated distributions”, en cours de rédaction.
- MO21. M. Olteanu, K. Pame, C. Bidot, G. Beaunée, E. Vergu, “Clustering and visualizing large cattle-trade networks using relational self-organizing maps”, en cours de rédaction.

C. Editoriaux

- MO22. M. Cottrell, M. Olteanu, J. Rouchier, N. Villa-Vialaneix, Editorial of the special issue of RNTI - MASHS 2011/2012 : Modèles et Apprentissage en Sciences Humaines et Sociales. Revue Des Nouvelles Technologies De l'Information, SHS-1, p. 97–110, 2012.

D. Chapitres de livres

- MO23. J. Gravier, L. Nahassia, D. Michel, N. Verdier, M. Olteanu, “Processus - Trajectoire”, To appear in 2020, In A. Bretagnolle, P. Brun, M.-V. Ozouf-Marignier, L. Sanders, N. Verdier (Eds.), *Les mots-clefs des systèmes de peuplement dans le temps long : regards croisés*, Editions de la Sorbonne.
- MO24. M. Olteanu, J. Alerini, “Quelques réflexions sur la périodisation en histoire”, 2019, In G. Bonnot, St. Lamassé (Ed.), *Dans les dédales du web : Historiens en territoires numériques*, Editions de la Sorbonne, p.57-85.
- MO25. E. Garcia Garaluz, M. Atencia, G. Joya, M. Olteanu, “Modeling dengue epidemics with autoregressive switching Markov models”, 2009, In A. Cabestany, F. Sandoval, A. Prieto, J.M. Corchado (Eds.), *Bio-inspired systems : Computational and Ambient Intelligence*, p. 886-892.
- MO26. M.-T. Boyer-Xambeu, G. Deleplace, P. Gaubert, L. Gillard, M. Olteanu, “Kolonnen maps and time-series algorithms : a clear convergence”, 2008, In J.R. Rabunal, J. Dorado, A. Pazos (Eds.), *Encyclopedia of Artificial Intelligence*.
- MO27. M.-T. Boyer-Xambeu, G. Deleplace, P. Gaubert, L. Gillard, M. Olteanu, “Mixing Kohonen algorithm, Markov switching model and detection of multiple change-points : an application to monetary history”, In F. Sandoval, A. Preto, J. Cabestany, M. Grana (Eds.), *Computational and Ambient Intelligence*.

E. Proceedings dans des conférences internationales “peer-reviewed”

- MO28. C. de Bézenac, J. Randon-Furling, W. A. Clark, M. Olteanu, “Measuring and visualizing patterns of ethnic concentration : the role of distortion coefficients”, accepté dans Population Association of America Meeting, 2020.
- MO29. M. Olteanu, J.-C. Lamirel, “When clustering the multiscalar fingerprint of the city reveals its segregation patterns”, 2019, In A. Vellido, K. Gibert, C. Angulo, and J. D. Martin Guerrero (Eds.), *Advances in Self-Organizing Maps, Learning Vector Quantization, Clustering and Data Visualization (Proceedings of WSOM+ 2019)*, Springer International Publishing, p. 140–149.
- MO30. M. Cottrell, C. Faure, J. Lacaille, M. Olteanu, “Detection of abnormal flights using fickle instances in SOM maps”, 2019, In A. Vellido, K. Gibert, C. Angulo, and J. D. Martin Guerrero (Eds.), *Advances in Self-Organizing Maps, Learning Vector Quantization, Clustering and Data Visualization (Proceedings of WSOM+ 2019)*, Springer International Publishing, p. 120-129.
- MO31. M. Cottrell, C. Faure, J. Lacaille, M. Olteanu, “Anomaly detection for bivariate signals”, 2019, In I. Rojas, G. Joya and A. Catala (Eds.), *Advances in Computational Intelligence (Proceedings of IWANN 2019), Lecture Notes in Computer Science*, Springer, p. 162-173.
- MO32. M. Olteanu, J. Randon-Furling, W. Clark, “Spatial analysis in high resolution geo-data”, 2019, In M. Verleysen (Ed.), *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN 2019)*, p. 559-564.
- MO33. J. Alerini, M. Cottrell, M. Olteanu, “Hidden Markov models for time series of continuous proportions with excess zeros”, 2017, In I. Rojas, G. Joya and A. Catala (dir.), *Advances in Computational Intelligence. 14th International Work-Conference on Artificial Neural Networks, IWANN 2017. Proceedings, Part II*, New York, Springer, p. 198-209.
- MO34. M. Cottrell, M. Olteanu, J. Randon-Furling, A. Hazan, “Multidimensional urban segregation : an exploratory case study”, 2017, *12th International Workshop on Self-Organizing Maps and Learning Vector Quantization, Clustering and Data Visualization (WSOM 2017+)*, IEEE Xplore.
- MO35. C. Faure, M. Olteanu, J.-M. Bardet, J. Lacaille, “Using self-organizing maps for clustering and labelling aircraft engine data phases”, 2017, *12th International Workshop on Self-Organizing Maps and Learning Vector Quantization, Clustering and Data Visualization (WSOM 2017+)*, IEEE Xplore.
- MO36. J. Mariette, M. Olteanu, F. Rossi, N. Villa-Vialaneix, “Accelerating stochastic kernel SOM”, 2017, In M. Verleysen (Ed.), *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN 2017)*, p. 269-274.

- MO37. M. Olteanu, N. Villa-Vialaneix, “Sparse online self-organizing maps for large relational data”, 2016, In E. Merényi, M. J. Mendenhall, & O.D.P. (Eds.), *Advances in Self-organizing Maps and Learning Vector Quantization (Proceedings of WSOM 2016)*, Springer International Publishing, Vol. 428, p. 27-37.
- MO38. J.-M. Bardet, C. Faure, J. Lacaille, M. Olteanu, “Comparison of three algorithms for parametric change-point detection”, 2016, In M. Verleysen (Ed.), *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN 2016)*, p. 89-94.
- MO39. N. Bourgeois, M. Cottrell, S. Lamassé, M. Olteanu, “Search for meaning through the study of co-occurrences in texts”, 2015, In I. Rojas, G. Joya and A. Catala (Eds.), *Advances in Computational Intelligence (Proceedings of IWANN 2015), Lecture Notes in Computer Science*, Springer, p. 578-591.
- MO40. L. Bendhaiba, J. Boelaert, M. Olteanu, N. Villa-Vialaneix, “SOMbrero : an R package for numeric and non-numeric self-organizing maps”, 2014, In Th. Villmann, F.-M. Schleif, M. Kaden, M. Lange, *Advances in Self-organizing Maps and Learning Vector Quantization (Proceedings of WSOM 2014)*, Berlin Springer Verlag, p. 219-228.
- MO41. J. Mariette, M. Olteanu, N. Villa-Vialaneix, “Bagged kernel SOM”, 2014, In Th. Villmann, F.-M. Schleif, M. Kaden, M. Lange, *Advances in Self-organizing Maps and Learning Vector Quantization (Proceedings of WSOM 2014)*, Berlin Springer Verlag, p. 45-54.
- MO42. C. Cierco-Ayrolles, M. Olteanu, N. Villa-Vialaneix, “Multiple kernel self-organizing maps”, 2013, In M. Verleysen (Ed.), *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN 2013)*, p. 83-88.
- MO43. S. Massoni, M. Olteanu, N. Villa-Vialaneix, “Which dissimilarity is to be used when extracting typologies in sequence analysis? A comparative study”, 2013, In I. Rojas, G. Joya and A. Cabestany (Eds.), *Advances in Computational Intelligence (Proceedings of IWANN 2013), Lecture Notes in Computer Science*, Springer, p. 69-79.
- MO44. M. Cottrell, M. Olteanu, N. Villa-Vialaneix, “Online relational SOM for dissimilarity data”, 2012, In P. Estevez, J. Principe, P. Zegers (Eds.), *Advances in Self-organizing Maps and Learning Vector Quantization (Proceedings of WSOM 2012)*, Springer, p. 13-22.
- MO45. M. Olteanu, J. Ridgway, “Hidden Markov models for time series of counts with excess zeros”, 2012, In M. Verleysen (Ed.), *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN 2012)*, p. 133-138.
- MO46. S. Massoni, M. Olteanu, P. Rousset, “Career-path analysis using drifting Markov models (DMM) and self-organizing maps”, 2010, *Proceedings of MASHS 2010 (Modelling and leArning in Social and Human Sciences)*, p. 171-179.
- MO47. M. Olteanu, J. Rynkiewicz, “Asymptotic properties of mixture-of-experts models”, 2010, In M. Verleysen (Ed.), *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN 2010)*, p. 207-212.
- MO48. S. Massoni, M. Olteanu, P. Rousset, “Career-path analysis using optimal matching and self-organizing maps”, 2009, In J. Principe, R. Miikkulainen (Eds.), *Advances in Self-organizing Maps and Learning Vector Quantization (Proceedings of WSOM 2009), Lecture Notes in Computer Science*, Springer, p. 154-162.
- MO49. Ch. Bouveyron, S. Girard, M. Olteanu, “Supervised classification of categorical data with uncertain labels for DNA barcoding”, 2009, In M. Verleysen (Ed.), *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN 2009)*, p. 22-34.
- MO50. S. Massoni, M. Olteanu, P. Rousset, “Analyse des trajectoires d’insertion professionnelle avec un algorithme de Kohonen pour données catégorielles”, 2009, *Proceedings of MASHS 2009 (Modelling and leArning in Social and Human Sciences)*.
- MO51. M. Olteanu, “Revisiting linear and nonlinear methodologies for time series prediction : application to ESTSP’08 competition data”, 2008, *Proceedings of the European Symposium on Time Series Prediction (ESTSP 2008)*, p. 139-148.
- MO52. M. Olteanu, J. Rynkiewicz, “Estimating the number of components of a mixture autoregressive model”, 2007, *Proceedings of the European Symposium on Time Series Prediction (ESTSP 2007)*, p. 143-154.
- MO53. M. Olteanu, J. Rynkiewicz, “Estimating the number of components in a mixture of multilayer perceptrons”, 2007, In M. Verleysen (Ed.), *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN 2007)*, p. 403-408.
- MO54. M. Olteanu, “A descriptive method to evaluate the number of regimes in a switching autoregressive model”, 2005, *Proceedings of the International Workshop on Self-Organizing Maps (WSOM 2005)*, p. 259-266.

- MO55. B. Maillet, M. Olteanu, J. Rynkiewicz, “Nonlinear analysis of shocks when financial markets are subject to changes in regime”, 2004, In M. Verleysen (Ed.), *European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN 2004)*, p. 87-92.

F. Conférences invitées.

- MO56. **S. Lamassé**, M. Olteanu, “Detecting the evolution phases of a text production”, In *12th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2019)*, London, UK, December 14-16, 2019.
- MO57. J. Alerini, **M. Olteanu**, “Markov and the Dukes of Savoy : A temporal analysis of the Piedmontese-Savoyard legislation”, In *12th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2019)*, London, UK, December 14-16, 2019.
- MO58. **M. Olteanu**, N. Vialaneix, J. Marietta, G. Beaunée, K. Pame, E. Vergu, “Clustering complex data with kernel and relational SOM. An application to cattle trading networks”, In *The 22nd Conference of the Romanian Society of Probability and Statistics (SPSR 2019)*, Bucharest, Romania, May 10-11, 2019.
- MO59. **J. Randon-Furling**, M. Olteanu, W. Clark, “The distorted city - capturing the complexity of perceived segregation”, In *ECSR Workshop*, Florence, Italy, April 11, 2019.
- MO60. M. Olteanu, **J. Randon-Furling**, “Assessing segregation in complex networks through a multi-focal approach”, In *11th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2018)*, Pisa, Italy, December 14-16, 2018.
- MO61. **M. Olteanu**, K. Pame, G. Beaunée, C. Bidot, E. Vergu, “Clustering and visualizing large cattle-trading networks using self-organizing maps”, In *11th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2018)*, Pisa, Italy, December 14-16, 2018.
- MO62. M. Olteanu, **J. Randon-Furling**, W. Clark, “Migrations and segregation in European cities”, In *D4I Joint Research Center - European Commission Workshop*, Brussels, Belgium, November 28, 2018.
- MO63. **M. Olteanu**, P. Rousset, “Using big data in order better to visualise the competences associated with jobs : the birth of an experimental project”, In *CEREQ Workshop*, Marseille, France, September 27, 2017.
- MO64. **M. Olteanu**, N. Villa-Vialaneix, “Using SOMbrero for clustering and visualizing complex data”, In *9th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2016)*, Sevilla, Spain, December 9-11, 2016.
- MO65. **M. Cottrell**, M. Olteanu, F. Rossi, N. Villa-Vialaneix, “Theoretical and applied aspects of the self-organizing maps”, In E. Merényi, M. J. Mendenhall, & O.D.P. (Eds.), *Advances in Self-organizing Maps and Learning Vector Quantization (Proceedings of WSOM 2016)*, Springer International Publishing, Vol. 428, p. 27-37, Houston, US, January 6-8, 2016.
- MO66. J. Alerini, **M. Olteanu**, “Markov et les ducs de Savoie : analyse de la temporalité du droit piémont-savoyard”, In *Workshop on "Data-mining in human and social sciences : issues and perspectives"*, IHP, Paris, France, April, 2012.
- MO67. **M. Olteanu**, “Etude des trajectoires d’insertion professionnelle à l’aide de chaines de Markov non-homogènes et de cartes auto-organisées”, In *Ateliers d’Ouverture, CEREQ*, Marseille, France, December, 2011.

G. Autres conférences

1. W. Clark, M. Olteanu, J. Randon-Furling, “Segregation beyond scale : assessing the individual perceptions of migrant residential segregation”, In *European Colloquium on Theoretical and Quantitative Geography (ECTQG)*, Mondorf-Les-Bains, Luxembourg, September 5-9, 2019.
2. M. Olteanu, J. Randon-Furling, W. Clark, “Focal distances and distortion coefficients : assessing the individual perception of multiscale segregation”, In *useR! 2019*, Toulouse, France, July 9-12, 2019.
3. M. Olteanu, K. Pame, G. Beaunée, C. Bidot, E. Vergu, “Clustering and visualizing large cattle-trade networks using relational self-organizing maps”, In *51èmes Journées de Statistique de la SFdS (JDS 2019)*, Nancy, France, June 3-7, 2019.
4. W. Clark, J. Randon-Furling, M. Olteanu, “A new method for analyzing ethnic mixing : Southern California as an exemplar”, In *American Association of Geographers Meeting (AAG 2019)*, Washington DC, US, April 3-7, 2019.
5. M. Olteanu, J. Randon-Furling, “Converging to the city : a myriad trajectories”, In *Conference in Complex Systems (CCS 2018)*, Thessaloniki, Greece, September 23-28, 2018.

6. W. Clark, J. Randon-Furling, M. Olteanu, "A new method for analyzing ethnic mixing : studies from Southern California", In *23rd International Conference on Computational Statistics (CompStat 2018)*, Iasi, Romania, August 28-31, 2018.
7. W. Clark, J. Randon-Furling, M. Olteanu, "A new method for analyzing ethnic mixing : studies from Southern California", In *European Network for Housing Research (ENHR) Conference*, Uppsala, Sweden, June 26-29, 2018.
8. M. Olteanu, G. Beaunée, C. Bidot, K. Pame, E. Vergu, "Clustering and visualizing large cattle-trading networks using self-organizing maps", In *International School and Conference on Network Science (NetSci 2018)*, Paris, France, June 11-15, 2018.
9. M. Olteanu, J. Randon-Furling, "Multiscalar socio-spatial dynamics in the city", In *BIFI International Conference on Complex Systems*, Zaragoza, Spain, February 6-8, 2018.
10. M. Olteanu, G. Beaunée, C. Bidot, C. Laredo, E. Vergu, "Using SOMbrero for clustering and visualizing large cattle-trading networks", In *BIFI International Conference on Complex Systems*, Zaragoza, Spain, February 6-8, 2018.
11. M. Olteanu, J. Randon-Furling, "Analyzing spatial dissimilarities via effective time-series", In *International Work-Conference on Time Series Analysis (ITISE 2017)*, Granada, Spain, September 18-20, 2017.
12. J. Alerini, M. Olteanu, "Exploring a century of Savoy history using hidden-Markov models with Beta-inflated distributions", In *International Work-Conference on Time Series Analysis (ITISE 2017)*, Granada, Spain, September 18-20, 2017.
13. J.-M. Bardet, C. Faure, J. Lacaille, M. Olteanu, "Design aircraft engine bivariate data phases using change-point detection methods and self-organizing maps", In *International Work-Conference on Time Series Analysis (ITISE 2017)*, Granada, Spain, September 18-20, 2017.
14. M. Olteanu, N. Villa, "Using SOMbrero for clustering and visualizing complex data", In *International Workshop on Operations Research (IWOR 2017)*, Habana, Cuba, March 14-17, 2017.
15. P. Alpi, M. Olteanu, J. Yilmaz, "Unsupervised learning for panel data", In *LaCOSA II International conference on sequence analysis and related methods*, Lausanne, Switzerland, June 8-10, 2016.
16. M. Olteanu, N. Villa-Vialaneix, "Classification et visualisation de graphes avec SOMbrero", In *4èmes Rencontres R*, Grenoble, France, June 24-26, 2015.
17. M. Olteanu, N. Villa-Vialaneix, "Multiple dissimilarity SOM for clustering and visualizing graphs with node and edge attributes", *International Conference on Machine Learning (ICML 2015), Workshop FEAST*, Lille, France, July 10, 2015.
18. M. Olteanu, N. Villa-Vialaneix, "Self-organizing maps for clustering visualization of bipartite graphs", In *46èmes Journées de Statistique de la SFdS (JDS 2014)*, Rennes, France, June 2-6, 2014.
19. L. Bendhaiba, M. Olteanu, N. Villa-Vialaneix, "SOMbrero : cartes auto-organisatrices stochastiques pour l'intégration de données décrites par des tableaux de dissimilarités", In *2èmes Rencontres R*, Lyon, France, June 27-28, 2013.
20. C. Cierco-Ayrolles, M. Olteanu, N. Villa-Vialaneix, " Carte auto-organisatrice pour graphes étiquetés", In *Ateliers Fouille de Grands Graphes, Extraction et Gestion des Connaissances (EGC 2013)*, Toulouse, France, January 29, 2013.
21. M. Olteanu, J. Ridgway, "DiscreteTS : two hidden-Markov models for time series of count data", In *1ères Rencontres R*, Bordeaux, France, July 2-3, 2012.
22. J. Alerini, M. Olteanu, J. Ridgway, "Modélisation de séries temporelles à valeurs entières par des modèles autorégressifs à changements de régime", In *44èmes Journées de Statistique de la SFdS (JDS 2012)*, Brussels, Belgium, May 21-25, 2012.
23. J. Alerini, M. Olteanu, J. Ridgway, "An application of regime-switching models to historical data", In *10th International Conference on Operations Research (ICOR 2012)*, Havana, Cuba, March 6-9, 2012.
24. C. Laredo, V. Nicolas, M. Olteanu, "On the use of self-organizing maps for the representation of Barcoding data : an application to *Hylomyscus* data", In *4th International Barcode of Life Conference*, Adelaide, Australia, November 28 - December 3, 2011.
25. S. Massoni, M. Olteanu, P. Rousset, "Career-path analysis using drifting Markov models (DMM) and self-organizing maps", In *9th International Conference on Operations Research (ICOR 2010)*, Havana, Cuba, February, 2010.
26. M. Olteanu, J. Rynkiewicz, "Consistency of the Bayesian Information Criterion for a class of mixture autoregressive models", In *The 11th Conference of the Romanian Society of Probability and Statistics (SPSR 2008)*, Bucharest, Romania, April, 2008.