

Natalia Bahamonde

Assistant Professor, Catholic University of Valparaiso, Errazuriz 2734, Valparaiso, Chile.

natalia.bahamonde@pucv.cl; +56 987451468/+56 322274053

PhD 2007, Orsay University France

2019 Gabriel A. Caceres, Eric D. Feigelson, G. Jogesh Babu, Natalia Bahamonde, Alejandra Christen, Karine Bertin, Cristian Meza, Michel Curé. Autoregressive Planet Search: Methodology. *Astronomical J*, 158-57.

2019 with GA Caceres, ED Feigelson, GJ Babu, A Christen, K Bertin, C Meza, M Curé. Autoregressive Planet Search: Application to the Kepler Mission. *Astronomical Journal*, 158-58

2019 with H Araya, S Torres, F Viens, Donsker type theorem for fractional Poisson process, *SPL150*, 1-8.

2018 with Torres S, Tudor C ARCH model and fractional Brownian motion. *SPL 134*, 70-78.

2017 with R Ruby-Figueroa, J Saavedra, A Cassano. Permeate flux prediction in the ultrafiltration of fruit juices by ARIMA models. *Journal of Membrane Science* 524, 108-116.

2016 with P Doukhan. Spectral estimation in the presence of missing data, *Th Proba & Math Stat* 95, 55-74.

Banu Baydil

Columbia University, Department of Statistics, 1255 Amsterdam Avenue, MC 4690, New York, NY, 10027, USA, bb2717@columbia.edu , banubaydil@gmail.com

Ph.D. Mathematics, M.S. Applied Mathematics, 2010 Rensselaer Polytechnic Institute (RPI), NY

Department of Statistics, Columbia University, New York, NY

Lecturer in Discipline in Statistics, Full Time Faculty, 07/2014 - Present

Director of Undergraduate Studies, 06/2016 – 06/2019

Multi-scale modeling, analysis and simulation in biological & sciences; Stochastic dynamics, modeling, analysis and simulation; Statistical, graph theory and machine learning based quantitative data analysis.

-Multiscale Feature Analysis of Salivary Gland Branching Morphogenesis, 2012, *PLoS ONE* 7(3): e32906. doi:10.1371/journal.pone.0032906, (with Bilgin, Ray, Daley, Larsen, Yener).

-Cell-Graph Modeling of Salivary Gland Morphology, *IEEE, ISBI* 2010, (with Bilgin, Ray, Daley, Sequeira, Yener, Larsen).

-Cell-Graph Modeling of Salivary Gland Morphology, *J Dent Res* 89 (Spec Iss A): 129302, 2010, (with Bilgin, Ray, Daley, Sequeira, Yener, Larsen).

-B. Baydil, Data-driven Multi-scale Modeling of Transport in Meso-scale Oceanic Turbulence, Abstracts of Papers Presented to the American Mathematical Society, 1079-60-441, 2012.

Ousmane Boly

Phone : 07 58 73 87 77. E-mail : bolyousmane@gmail.com

Currently in the thesis in applied mathematics under the supervision of Prs. Doukhan and Prigent « Point processes fo random sampling » AGM 8088 CYU.

Joel E. Cohen

Rockefeller University & Columbia University, 1230 York Avenue, Box 20, New York, NY 10065, USA, +1 212 327 8883, cohen@rockefeller.edu

Professor of Populations; Head of the Laboratory of Populations since July 1975; jointly with Columbia University since July 1995; Abby Rockefeller Mauzé Professor since June 1996; Visiting Scholar, University of Chicago, since July 2013

Research interests: Mathematical population biology, demography, ecology, epidemiology, stochastic processes, linear algebra

Some recent papers:

Meng Xu, Jeppe Kolding, J. E. Cohen (2018) Sequential analysis of fixed-precision sampling of Lake Kariba fishes using Taylor's law. *Canadian Journal of Fisheries and Aquatic Sciences*

Guy J. Abel, J. E. Cohen (2019) Bilateral international migration flow estimates for 200 countries. *Scientific Data* 6(82):1-13.

J. E. Cohen (2019) Sum of a random number of correlated random variables that depend on the number of summands. *The American Statistician* 73(1):56–60.

J. E. Cohen (2019) Every variance function, including Taylor's power law of fluctuation scaling, can be produced by any location-scale family of distributions with positive mean and variance. *Theoretical Ecology*.

Meng Xu, J. E. Cohen (2019) Analyzing and interpreting spatial and temporal variability of US county population distributions using Taylor's law. *PLoS ONE* 14(12):e0226096.

Michael K. Tippett, J. E. Cohen (in press) Seasonality of Taylor's law of fluctuation scaling in all-India daily rainfall. *Climate and Atmospheric Science*, accepted 2019-12-12.

Debaly Zinsou Max

Post-Doc CYU Lab AGM/ECODEP

2022 PhD in Mathematical Statistics ENSAI, 2019–2022 ENSAI, 2018–2019 ENSAE-Dakar

-- Zinsou Max Debaly, Philippe Marchand, and Miguel Montoro Girona. "Autoregressive models for time series of random sums of positive variables: Application to tree growth as a function of climate and insect outbreak" *Ecological modelling* 471, (2022): 110053. doi: 10.1016/j.ecolmodel.2022.110053.

- Debaly, Z.-M. and Truquet, L. (2023) 'Multivariate time series models for mixed data', *Bernoulli*, 29(1), pp. 669–695. Available at: <https://doi.org/10.3150/22-BEJ1474>.

- DEBALY, Zinsou Max et TRUQUET, Lionel (2021). A note on the stability of multivariate non-linear time series with an application to time series of counts. *Statistics and Probability letters*.

- DEBALY, Zinsou Max et TRUQUET, Lionel (2021). Iterations of dependent random maps and exogeneity in nonlinear dynamics. *Econometric Theory*, 1-38. doi:10.1017/S0266466620000559

- Soti, V., Thiaw, I., Debaly, Z. M., Sow, A., Diaw, M., Fofana, S. & Brévault, T. (2019). Effect of landscape diversity and crop management on the control of the millet head miner, *Heliocheilus albipunctella* (Lepidoptera: Noctuidae) by natural enemies. *Biological Control*, 129, 115-122.

Victor H. de la Pena

Columbia University Department of Statistics. Ph. D. Statistics UCLA 1988

1988 - ... Professor, Department of Statistics. Columbia University.

Inequalities in Probability and Statistics, Self-Normalized Processes; General Dependence Structures, Decoupling, Copulas, Earth Sciences (Global Warming, El Nino).

National Science Foundation grant DMS-02-21041 : “IGERT: A Joint Graduate Program in Applied Mathematics and Earth and Environmental Sciences.” \$3 million (U.S.) over 5 years. PI's: L Polvani, D Hong Phong, M Visbeck, Victor H de la Peña, U Lall (Dec 2002- Nov 2007).

-*Decoupling: From Dependence to Independence* (with E. Gine). Springer-Verlag, 1999.

-*Self-Normalized Processes: Limit Theorems and Statistical Applications* (with QM Shao and TL Lai) Springer-Verlag, 2009.

-*Inequalities and extremal problems in Probability and Statistics*, with I Pinelis, R Ibragimov, A Osekowski and I Shevtsova. Elsevier, 2017.

-*Indian Summer Monsoon and Rainfall and its Link with ENSO and the Indian Ocean Dipole Mode.* (with C Ihara, J Kushnir and M Cane) *International Journal of Climatology*, 27, 179-187 (2007).

-Theory and applications of multivariate self-normalized processes (with J Klass and TL Lai.). *SPA* 119, 4210-4227 (2009).

-Taylor's law for via ratios, for some distributions without finite mean (with M Brown and J Cohen) *JAP* 54 (3) pp 657-669 (2017).

Gilles Durrieu

French, 2 children (8 and 10 years old), Born on August 5, 1969 Toulouse (France)

LMBA, UBS UMR CNRS 6205, Campus de Tohannic, 56017 Vannes, France and Labex Corail
0033 (0)2 97 01 71 78

gilles.durrieu@univ-ubs.fr, https://www.researchgate.net/profile/Gilles_Durrieu

<https://orcid.org/0000-0003-0375-912X>, <http://web.univ-ubs.fr/lmba/durrieu/>

PEDR/PES since 2006.

-February 2017-January-2019 : Professor at University of New-Caledonia, Nouméa (2 years delegation).

-September 2010- J... : Professor at University of Bretagne Sud

-2014 : Promotion first class professor

-September 1999 – August 2010: Associate professor, University of Bordeaux.

Nonparametric statistics, ecological modeling, robust statistics, global warming, sequential statistics, machine learning, biology.

Some recent publications in ecology:

-Bercu B, Capderou S, Durrieu G (2019) A nonparametric statistical procedure for the detection of marine pollution, *J of Applied Statistics*, 46(1), 119-140.

-Bercu B, Capderou S, Durrieu G (2019) Nonparametric recursive estimation of the derivative of the regression function with application to sea shores water quality, *SISP*, 22(1), 17-40.

-Durrieu G, Grama I, Jaunatre K, Tricot JM (2018) *extremefit*: A Package for extreme quantiles, *Journal of Statistical Software*, 87-12, 1-20.

-Durrieu G, Pham QK, Foltete AS, Maxime V, Grama I, Le Tilly V, Duval H, Tricot JM, Sire O (2016) Dynamic extreme values modeling and monitoring by means of for sea shores water quality biomarkers and valvometry, *Environmental Monitoring and Assessment*, 188, 401-409.

-Durrieu G, Grama I, Pham QK, Tricot JM (2015) Nonparametric adaptive estimator of extreme conditional tail probabilities and quantiles, *Extremes*, 18, 437-478.

-Azais R, Coudret R, Durrieu G (2014) A hidden renewal model for monitoring aquatic systems biosensors, *Environmetrics*, 25, 189-199.

Xiequan Fan

Date of birth: 23st of Dec., 1982, China, fanxiequan@hotmail.com

2013 PhD, probability theory and mathematical statistics, Université de Bretagne-Sud.

2013-2015 Post-Doc INRIA and Ecole Centrale Paris, France.

Since 2015 Associate professor at Center for Applied Mathematics, Tianjin University, Tianjin, China.

-X. Fan, I. Grama, Q. Liu, Q.M. Shao, 2019. Self-normalized Cramér type moderate deviations for martingales. *Bernoulli* 25(4A), 2793--2823.

-J. Dedecker, P. Doukhan, X. Fan, 2019. Deviation inequalities for separately Lipschitz functionals of composition of random functions. *J. Math. Anal. Appl.* 479(2), 1549--1568.

-X. Fan, I. Grama, Q. Liu, Q.M. Shao, 2020. Self-normalized Cramér type moderate deviations for stationary sequences and applications. *Stochastic Process. Appl.* 130(8): 5124--5148.

-X. Fan, H. Hu, Q. Liu, 2020. Uniform Cramér moderate deviations and Berry-Esseen bounds for a supercritical branching process in a random environment. *Front. Math. China* 15(5): 891--914.

-X. Fan, H. Hu, X. Ma, 2021. Cramér moderate deviations for the elephant random walk. *J. Stat. Mech. Theory E.* 2021(2): 023402.

Guillaume Franchi

Currently in thesis in applied mathematics under the supervision of Prs. Truquet and Doukhan « Dynamic modeling of abundance data in ecology » ENSAI-Campus Ker-Lann, Rue Blaise Pascal BP 37203, 35172 BRUZ cedex/ guillaume.franchi@ens-cachan.org

2020-2021 : Master in statistics for smart data, ENSAI France

2011-2020 : High school mathematics teacher

2011 : Agregation in mathematics

2010 -2011 : Master's degree in teaching an training professions, mathematics. University of Rennes 1

2009-2010 : First year of Master's degree in mathematics, University of Rennes 1

2006-2009 : Bachelor's degree in mathematics, University of Rennes 1 and ENS Cachan, Brittany Antenna.

Thierry Huillet

LPTM, CNRS-UMR 8089 University Cergy-Pontoise,

2 Avenue Adolphe Chauvin, 95302, Cergy-Pontoise, FRANCE. Thierry.Huillet@u-cergy.fr

(CNRS Researcher, section 02). Ingénieur Civil des Mines,

- Statistical Models of nucleation-aggregation: coalescence; random energy cas- cades.
- Renewal phenomena (processes). Hurst phenomenon, waiting time paradox.
- Lévy-Fréchet extremal processes. Stable and semistable laws. Self-similarity.
- Interfaces models of SOS type over a disordered or not substrate. Random walks and wetting.
- Random Point processes of ‘determinantal/permanent/renewal’ types. Cor- relations structure. Anomalous Fluctuations in disordered systems.
- Random partitions of the interval and circle: “coupon collector” and “birth- day” problems. Statistical Models of ”Hard-rods”, “packing” and “parking” configurations. Covering problems. Random deposition.
- Sampling problems from random Dirichlet partition of the interval.
- Random occupancies, urn models.

- Population Genetics as from Wright-Fisher diffusion models including fitness, mutation, dominance. Duality and coalescent. Most recent common ancestor.
- Population growth models subject to catastrophic events.

Recent works (2003-), published or to appear accessible directly on the LPTM website at:

<http://www.u-cergy.fr/rech/labo/equipes/ptm/publications.html> or on the French webserver HAL or at

https://www.researchgate.net/profile/Thierry_Huillet/ <https://orcid.org/0000-0001-8434-2160>

Pierre E. Jacob

Professor of statistics at ESSEC Business School since 2021. PhD from Université Paris Dauphine in 2012, worked as a postdoc at the National University of Singapore and the University of Oxford and started as a faculty in the Department of Statistics of Harvard University in 2015.

Research interests : statistical methods for the analysis of temporal data with state space models, Monte Carlo algorithms, Bayesian statistics.

2021 Royal Statistical Society Guy Medal in Bronze

2022 Committee of Presidents of Statistical Societies Leadership Academy award.

Some recent publications :

- *Coupling-based convergence assessment of some Gibbs samplers for high-dimensional Bayesian regression with shrinkage priors*, with Niloy Biswas, Anirban Bhattacharya, James E. Johndrow. *Journal of the Royal Statistical Society: Series B*, 2022.
- *A Gibbs sampler for a class of random convex polytopes*, with Ruobin Gong, Paul T. Edlefsen, Arthur P. Dempster. *Journal of the American Statistical Association*, 116:535, 1181-1192, 2021, with discussion.
- *Unbiased Markov chain Monte Carlo with couplings*, with John O'Leary, Yves F. Atchadé. *Journal of the Royal Statistical Society: Series B*, 82, 543-600, 2020, with discussion.
- *Smoothing with Couplings of Conditional Particle Filters*, with Fredrik Lindsten, Thomas Schön. *Journal of the American Statistical Association*, 115(530), 721-729, 2020.

William Kengne

THEMA CNRS UMR 8184, Université de Cergy-Pontoise, 33 bd du Port 95011 Cergy Cedex

+33 (0)1 34 25 61 73, william.kengne@u-cergy.fr ; william.kengne@gmail.com

Sep. 2013 - ... : Assistant Professor in Statistics, Université de Cergy-Pontoise

Research interests ; Change-point detection, causal processes, time series of counts, model selection

Bardet J-M, Kengne, W, Wintenberger O (2012) Detecting multiple change-points in general causal time series using penalized quasi-likelihood. *Electronic Journal of Statistics* 6, 435-477.

Kengne W (2012) Testing for parameter constancy in general causal time-series models. *JTSA* 33, 503-518.

Bardet J-M, Kengne W (2014) Procedure for parameter change in causal time series. *Journal of Multivariate Analysis* 125, 204-221.

Doukhan P, Kengne W (2015) Inference and testing for structural change in general poisson autoregressive models. *Electronic Journal of Statistics* 9, 1267-1314.

Diop ML, Kengne W (2017) Testing parameter change in general integer-valued time series. *JTSA* 38, 880-894.

Azadeh Khaleghi

Professor of Statistics at CREST - ENSAE, Palaiseau, France (2022 - present)

Ph.D. Mathematics, Université de Lille I - INRIA, Lille, France (2010 – 2013)

Research Interests: Mathematical foundations of statistics and machine learning, with a focus on 1. devising nonparametric models for stationary ergodic time series, and 2. studying the possibilities and limitations of sequential decision making under uncertainty where long-range dependencies and/or non-stationarities may be present.

Google Faculty Research Award, 2019/20/ London Mathematical Society (LMS) Scheme 4 Grant, 2019/ Adobe Research Grant, 2018/ London Mathematical Society (LMS) Scheme 1 Grant, 2017/ E.M. Gold Best Paper Award at the 24th International Conference on Algorithmic Learning Theory (ALT), 2013

G. Blower, A. Khaleghi, M. Kuchemann-Scales, Hasimoto frames and the Gibbs measure of periodic nonlinear Schrödinger Equation, arXiv:2205.12868, 2022.

Khaleghi, G. Lugosi, Inferring the mixing properties of an ergodic process, arXiv:2106.07054, 2021.

S. Grünewälder, A. Khaleghi, Oblivious Data for Fairness with Kernels, Journal of Machine Learning Research, (208): 1-36, 2021.

A. Khaleghi, D. Ryabko, Clustering piecewise stationary processes, In Proceedings of the IEEE International Symposium on Information Theory, 2020.

S. Grünewälder, A. Khaleghi, Approximations of the Restless Bandit Problem, Journal of Machine Learning Research, 20:1-37, 2019.

Khaleghi, D. Ryabko, J. Mary, P. Preux, Consistent Algorithms for Clustering Time Series, Journal of Machine Learning Research, 17(3):1-32, 2016.

A. Khaleghi, D. Ryabko, Nonparametric Multiple Change Point Estimation in Highly Dependent Time Series, Theoretical Computer Science, 620:119-133, 2016.

Naushad Ali Mamode Khan

Mauritian, n.mamodekhan@uom.ac.mu Associate Professor in Statistics, Department of Economics and Statistics, Faculty of Social Sciences and Humanities, University of Mauritius.

Feb 2003-May 2010 PhD in Statistics awarded by the University of Mauritius (Sponsored by TEC), Regression Analysis of Longitudinal data

Aug 1999- July 2002 Degree, Bsc(Hons) Mathematics with Computer Science, University of Mauritius.

Generalized Linear Models. Mathematics for Statistics/Actuaries. Time Series and Longitudinal Data Analysis. Statistical Computing. Computational Methods and Inferential Procedures.

Time Series and Longitudinal Count Data Modelling. Computational Statistics.

Some publications

Jowaheer V, Mamode Khan N, Sunecher Y (2018). A BINAR(1) time-series model with cross-correlated COM-Poisson innovations. Com. in Stat.-Th. and Meth. 47-5, 1133-1154

Sunecher Y, Mamode Khan N, Jowaheer V (2017). Estimating the parameters of a BINMA Poisson model for a non-stationary bivariate time series. Communications in Statistics, Simulation and Computation 46-9

Sunecher Y, Mamode Khan N, Jowaheer V (2016). Modelling a non-stationary BINAR(1) Poisson process. Journal of Statistical Computation and Simulation 86-15.

Mamode Khan N, Jowaheer V (2013). Comparing Joint GQL Estimation and GMM Adaptive Estimation in COM-Poisson Longitudinal Regression Model. Communications in Statistics - Simulation and Computation 424, 755-770

Pablo A. Marquet

PhD in Biology. Full Professor: Ecology Department, PUC Chile and Santa Fe Institute. President of the Institute of Complex Systems of Valparaíso. Institute of Ecology and Biodiversity (IEB), the International Laboratory on Global Change (LincGlobal), UC Global Change Center. Author of more than 220 scientific publications including eight books and special issues. Guggenheim Fellowship in 2006, Chilean Academy of Sciences (2013), Associate of the National Academy of Sciences (USA, 2018), Honorary member of the American Academy of Arts and Sciences (2018) Fellow of The World Academy of Sciences (TWAS, 2018) and of the Ecological Society of America (ESA). His main interests are Ecology, Global Change and Complex Systems evolution:

Rebolledo R, Navarrete SA, Kefi S, Rojas, S, Marquet PA (2019). An open-system approach to complex biological networks. *SIAM Journal of Applied Mathematics* 79(2), 619–640.

Freilich MA, Wieters E, Broitman BR, Marquet, PA, Navarrete SA (2018). Species co-occurrence networks: Can they reveal trophic and non-trophic interactions in ecological communities? *Ecology* 99(3): 690-699.

Hochberg ME, Marquet PA, R Boyd, A Wagner (2017) Innovation: An merging focus from cells to societies. *Phil.Trans. R. Soc. B* 20160414. <http://dx.doi.org/10.1098/rstb.2016.0414>

Marquet PA, Espinoza G, Abades SR, Ganz A, and R Rebolledo (2017) On the proportional abundance of species: Integrating population genetics and community ecology. *Scientific Reports* 716815 (2017).

Weinberger VP, Quiñinao C, Marquet PA (2017). Innovation and the growth of human population. *Phil. Trans. R. Soc. B*, 372(1735), 20160415.

Mohamed Ndaoud (Simo)

Assistant Professor of Statistics at ESSEC Business School, and a member of the Statistics Department of CREST since June 2021. PhD in theoretical statistics, under the supervision of A.B. Tsybakov in 2019, was an Assistant Professor (RTPC) in the department of Mathematics at USC since August 2019.

Research interests are in high dimensional statistics. More specifically: variable selection, estimation and community detection, robust statistics, stochastic processes, harmonic analysis and random matrix theory.

Some recent publications:

Ndaoud, M., Sigalla, S., Tsybakov, A.B. (2019). Improved clustering algorithms for the Bipartite Stochastic Block Model. *IEEE Information Theory*.

Ndaoud, M. Sharp optimal recovery in the two Gaussian Mixture Model. (2018) *Annals of Statistics*.

Comminges, L., Collier, O., Ndaoud, M., & Tsybakov, A.B. Adaptive robust estimation in sparse vector model. (2019) *Annals of Statistics*.

Michael Helmut Neumann

Born: December 06, 1962, in Cottbus, Germany. Married, 2 children

1999 Habilitation in Mathematics, Humboldt University, Berlin

Since 08/2006 Full Professor of Mathematical Statistics (W3), Friedrich Schiller University, Jena

04/2002-07/2006 Full Professor of Mathematical Stochastics (C4), Technische Univ. Braunschweig.

10/2000-03/2002 Associate Professor, Mathematical Statistics, C3, University of Cologne.

Neumann, MH (1998). Strong approximation of density estimators from weakly dependent observations by density estimators from independent observations. *Annals of Statistics* 26, 2014-2048.

Grams IG, Neumann MH (2006). Asymptotic equivalence of nonparametric autoregression and nonparametric regression. *Annals of Statistics* 34, 1701-1732.

Doukhan P, Neumann, MH (2007). Probability and moment inequalities for sums of weakly dependent random variables, with applications, *Stochastic Processes and their Applications* **117**, 878-903.

Doukhan P, Lang G, Leucht A, Neumann MH (2015). Dependent wild bootstrap for the empirical process. *Journal of Time Series Analysis* **36**, 290-314.

Doukhan P, Neumann MH (2019). Absolute regularity of semi-contractive GARCH-type processes. *Journal of Applied Probability* **56**, 91-115.

Sergio Navarrete

Full Professor at Pontificia Universidad Católica de Chile and Director of Estación Costera de Investigaciones Marinas (ECIM), Las Cruces +5635 243 1670, snavarrete@bio.puc.cl

PhD Zoology, Oregon State University and postdoctoral studies University of California, Santa Barbara.

Conicyt Recognition for the Best Project in the Fondecyt Regular competition (2007). Frontier Science program, Chilean Academy of Sciences (2004).

The lab is dedicated to the study of the dynamics and diversity of coastal marine communities and the influence that oceanographic and climatic processes have on them from local scales to regional scales.

Duffy, J. E., J. S. Lefcheck, R. D. Stuart-Smith, S. A. Navarrete, and G. J. Edgar. 2016. Biodiversity enhances reef fish biomass and resistance to climate change. *PNAS* **113**:6230-6235.

Kéfi, S., V. Miele, E. A. Wieters, S. A. Navarrete, and E. L. Berlow. 2016. How Structured Is the Entangled Bank? The Surprisingly Simple Organization of Multiplex Ecological Networks Leads to Increased Persistence and Resilience. *Plos Biology* **14**:DOI:10.1371/journal.pbio.1002527

Kéfi, S., E.L. Berlow, E. A. Wieters, S. A. Navarrete, O. L. Petchey, S. A. Wood, A. Boi, L. N. Joppa, K.D. Lafferty, R.J. Williams, N.D. Martinez, B.A. Menge, C.A. Blanchette, A. Iles, U. Brose. 2012. More than a meal: Integrating non-feeding interactions into food webs. *Ecology Letters*, **15**:291-300

Stuart-Smith, R.D., A. Bates, J.S. Lefcheck, E. Duffy, C. Baker, R. J. Thomson, J.F. Stuart-Smith, N.A. Hill1, S.J. Kininmont4, L. Airolidi, M.A. Becerr, S. J. Campbell, T.P. Dawson, S.A. Navarrete, G.A. Sole1, E.M A. Strain, T.J. Willis, G.J. Edgar 2013. Integrating abundance and functional traits reveals new global hotspots of fish diversity. *Nature*, **501**: 539-542

Thi Hien Nguyen

Lecturer, Department Mathematics, CY Tech Paris University, Avenue du Parc, 95000 Cergy, France

tnn@eisti.eu, + 33 6 38 63 66 81

2013-2017 : PhD Mathematics, University of Brest, France

2012-2013 : Master 2, Mathematics and applications at ENS Cachan, Paris, France

2011-2012 : Master 1, Mathematics at Hanoi National University of Education (HNUE), Hanoi, Vietnam

2007-2011 : Bachelor, Mathematics at HNUE, Vietnam

Research interests : Spectral theory of diffusion incompressible mediums, Optimal transport application for studying the heat flow, Statistical process control

with B Franke, The speed of relaxation for diffusion with drift satisfying exponential decay of correlations, *Proc. Amer. Math. Soc.* **146- 6**, 2425-2434. 3(2018)

with KP Tran P Castagliola, A Cuzol, The Efficiency of VSI Exponentially Weighted Moving Average median, *Proc 24th ISSAT Int Conference on Reliability, Quality in Design* 203-208, Toronto (2018).

with KP Tran, P Castagliola, A Cuzol, Design of a Variable Sampling Interval EWMA Median Control Chart, *Int. Journal of Reliability, Quality and Safety Engineering* 26-5 1950021 (2019)

with QT Nguyen, KP Tran, HD Nguyen, Variable sampling interval Shewhart control charts for monitoring the Multivariate Coefficient of Variation, *Applied Stochastic Models in Business and Industry*, John Wiley & Sons, 35(5), 1253-1268 (2019).

with KP Tran, KD Tran, HD Nguyen LH, Nguyen, TN Nguyen, One-Sided Synthetic-RZ control charts: a new method for anomaly detection, 6th NAFOSTED Conference (NICS) (2019).

Jean-Luc Prigent

Professor in Economics and Finance at University of Cergy-Pontoise, and member of ThEMA (UMR CNRS 8184), Department of Economics and Business and of Labex MMEDII (ANR11-LBX-0023-01).

Portfolio optimization; performance measurement; asset pricing and hedging; financial econometrics; risk management; decision theory; real options; corporate finance.

Scientific consultant for financial institutions. Author of 5 books and of about 80 published papers, as:

1) Hedging global environment risks: An option based portfolio insurance, *Automatica*, 44(6), 1519-1531, 2008. (with A. de Palma).

2) On the optimality of funding and hiring/firing according to stochastic demand: the role of growth and shutdown options. *Economic Modelling*, 40, 410-422, 2014. (with N. Letifi).

3) A dynamic autoregressive expectile for time-invariant portfolio protection strategies. *Journal of Economics Dynamics and Control*, 46, 1-29, 2014. (with B. Maillet and B. Hamidi).

4) Risk management of time varying floors for dynamic portfolio insurance. *European Journal of Operational Research*, 269(1), 363-381, 2018. (with Hachmi Ben Ameur).

5) On the optimality of path-dependent structured funds: The cost of standardization, *European Journal of Operational Research*, 277, 333-350, 2019. (with Philippe Bertrand).

Rolando Rebolledo

Mathematical Engineer by the Universidad de Chile “Doctorat d’État ès-Sciences” at the University Pierre et Marie Curie (Paris VI). Full Professor at the University Paris-Sud and at the Universidad Católica de Chile in Santiago from 1981 until 2016. Full Professor at the Universidad de Valparaíso. Founding member of the Mathematical Society of Chile and has presided over it frequently. Member of the Board of the Bernoulli Society; Société Mathématique de France; American Mathematical Society; European Mathematical Society. Development and Exchange Commission of the International Mathematical Union.

Research: Open System Dynamical Models through Stochastic Analysis in both classical and quantum versions. Main results on limit theorems for stochastic processes. Recently contributed to the Theory of Quantum Markov Semigroups and has since 2010 a fruitful collaboration with Pablo Marquet’s team. Scientific production includes 100 articles published in international journals and seven research books.

1. Sur les applications de la Théorie des Martingales à l’étude statistique d’une famille de processus ponctuels. *Proc Col. Stat. Grenoble. LNM 636* (1978), 27-70.

2. La Méthode des Martingales appliquée à l’étude de la convergence en loi de Processus. *Bull. Soc. Math. de France, Mémoire 62* (1979), 125 pages.

3. Central Limit Theorems for Local Martingales. *Zeit. für Wahr. verw. Gebiete* 51 (1980), 269-286.
with PA Marquet, G Espinoza, SR Abades, A Ganz, R Rebolledo: On the proportional abundance of species: Integrating population genetics and community ecology. *Nature-Scientific Reports*, 2017, 7:16815.
4. with C Lizama. Semigroup approach to fractional Poisson processes. *Compl. Anal. Oper. Th.* 12-3 (2018), 777–785.
5. with Sergio A Navarrete, Sonia Kéfi, Sergio Rojas, Pablo A Marquet: An Open-System Approach to complex biological networks, *SIAM Journal of App. Math.*, 2019, 619-640.

Laurence Reboul

MCf Aix Marseille University, staying in CYU Ecodep project for the academic year 2022-2023.

Research area in the development of non-parametric inference methods adapted to the estimation and the comparison of some characteristics of strictly stationary temporal or spatial phenomena admitting some kind of short or long range dependence. Such phenomena frequently appear in a large number of application fields; currently working on ecology oriented specific applications, such as modeling migration in relation to climate change or population aging in time and space. Some publications

1. Pommeret, D., Reboul, L. & Yao, A.F. (2022) "Testing the equality of the laws of two strictly stationary processes », *Stat Inf. Stoch Process* (2022). <https://doi.org/10.1007/s11203-022-09272->
2. Borderon, M., Reboul, L., Assena, N., Teresa, M., Doignon, Y. , Sakdapolrak, P. And Sterly, H. (2022). "Household Capabilities and Satisfaction with Living Conditions Shape (Im)Mobilities: A Gendered Analysis of Migration Dynamics of a Drought-Prone Area of Ethiopia », *SSRN Electronic Journal*, DOI : 10.2139/ssrn.4159395
3. Doukhan, P., Grublyte, I., Pommeret, D., Reboul, L. (2020) « Comparing the marginal densities of functions of two strictly stationary linear processes », *AISM* 72, pages 1419–1447
4. Boutahar, I., Kchaou, W. & Reboul, L. (2019) «Estimation of Pickands dependence function of bivariate extremes under mixing conditions », *Lithuanian Mathematical Journal*, 60, pages 129–146.
5. Pommeret, D., Reboul, L. (2019) « Approximating the probability density function of a transformation of random variables », *Methodology and Computing in Applied Probability*. Vol. 21 n°2, pp 633–645.

Eric M. Renault

Department of Economics, University of Warwick, Coventry, West Midlands, CV4 7AL, United Kingdom

Phone: +44 24 7652 3935, Email: eric.renault@warwick.ac.uk

Professor of Economics, University of Warwick, since January 2019

Visiting Professor, Monash University, Melbourne, since May 2015,

Member of Stevanovich Center for Financial Mathematics, University of Chicago, since February 2016,

IUF Junior member

Research interests: Econometric Theory, Time Series, Financial Econometrics. Some recent papers:

- 1 "Indirect Inference With(out) Constraints" (with D. Frazier), *Forthcoming Quantitative Economics*, 2019.
2. "Score Tests in GMM: Why Use Implied Probabilities?" (with S. Chaudhuri), *J. of Econometrics*, 2019.
3. "Testing Identification Strength" (with B. Antoine), *Forthcoming Journal of Econometrics*, 2019.
4. "Pseudo-True SDFs in Conditional Asset Pricing Models" (with B. Antoine and K. Proulx), Invited lecture with Discussion, *Journal of Financial Econometrics*, September 2018, p 1-59.

5. "Indirect Inference with Endogenously Missing Exogenous Variables" (with S. Chaudhuri and D. Frazier), *Journal of Econometrics*, 205:1, July 2018, p 55-75.
6. "Identifying Contagion" (with M. Dungey), *J. of Applied Econometrics*, 33:2, March 2018, p 227-250.

Yahia Salhi

ORCID: 0000-0001-7221-8146 Date of birth: 21st of July, 1984, French, salhi.yahia.free.fr

2013 PhD, actuarial sciences, applied maths, SAF - ISFA, Lyon.

2018 Assistant professor, ISFA, Lyon.

2018 Best paper award in the International Congress of Actuaries / Germany

-Y. Salhi, P.-E. Thérond, Age-Specific Adjustment of Graduated Mortality, *ASTIN Bulletin* (2018) 48(2) 543-569

-N. El Karoui, S. Loisel, Y. Salhi, Minimax Optimality in Robust Detection of a Disorder Time in Poisson Rate, *The Annals of Applied Probability* (2017) 27(4), 2515-2538

-P. Doukhan, J. Rynkiewicz, D. Pommeret, Y. Salhi, A Class of Random Field Memory Models for Mortality Forecasting, *Insurance: Mathematics and Economics* (2017) 77:97-110

-F. Barsotti, X. Milhaud, Y. Salhi, Lapse Risk in Life Insurance: Correlation and Contagion Effects Among Policyholders' Behaviors, *Insurance: Mathematics and Economics* (2016) 71:317-331

-H. Bensusan, N. El Karoui, S. Loisel, Y. Salhi, Partial splitting of longevity and financial risks: The life nominal chooser swaption, *Insurance: Mathematics and Economics* (2016) 68:61-72

Lionel Truquet

Associate Professor, ENSAI-Campus Ker-Lann, Rue Blaise Pascal BP 37203, 35172 BRUZ cedex,

e-mail : lionel.truquet@ensai.fr

Specialist of time series analysis and dependent data

K Fokianos, L Truquet (2019). On categorical time series models with covariates. *SPA* 129(9):3446–3462.

L Truquet (2017). Parameter stability and semiparametric inference in time varying auto-regressive conditional heteroscedasticity models. *JRSS B* 79(5):1391-1414.

L Truquet (2018). Efficient semiparametric estimation in time-varying regression models. *Statistics* 52(3):590-618.

L Truquet (2019) Local stationarity and time-inhomogeneous markov chains. *AoS* 47(4):2023-2050.

L Truquet (2019). Root-n consistent estimation of the marginal density in semi-parametric autoregressive time series models. *Bernoulli* 25(3):2107–2136.