Paul Doukhan

Professor of Mathematics and Statistics, Exceptional class, Senior IUF honorary member

University Cergy Pontoise UFR Economy and Sciences, Saint-Martin,

Lab AGM UMR CNRS 8088. 2 Avenue A. Chauvin, BP 222 Pontoise, 95302 Cergy-Pontoise cedex

Born on February 7, 1955, Constantine, Algeria, 2 children, french nationality
Email doukhan@cyu.fr / http://doukhan.u-cergy.fr,
Abroad teaching experience, advanced courses: *Belgium, Brazil, Chile, China, Colombia, Cyprus, Denmark, Ecuador, Germany, Ivory Cost, Japan, Poland, USA, Hong Kong, Switzerland, Ukraine, Uruguay, Venezuela*

A. Vitae

1975-1979	Fellow at ENS Saint-Cloud
1976-1977	D.E.A. Statistics University Paris-Sud Orsay
1977-1978	French competition for highshool professors in Mathematics, ranking 11th
1979-1980	Fellowship D.G.R.S.T.
5/1980	PhD **May 30** : Processus autorégressifs non linéaires, advisor: J. Bretagnolle, Paris-Sud University, Orsay
1980-1981	Internship for professors in highshools [Academy of Versailles]
1981-1982	Assistant Professor Rouen University
1982-1983	Researcher CNRS
1983-1993	Full position of researcher C.N.R.S.
6/1986	Habilitation Thesis **June 11**: Etude de Processus mélangeants, advisor: D. Dacunha-Castelle, University Paris-Sud, Orsay. Jury : J.M. Bony, J. Bretagnolle, P. Deheuvels, D. Dacunha-Castelle, J.R. Leon, J.P. Raoult. Second Thesis : Systèmes hyperboliques de conservation de lois multidimensionnelles, with J.M. Bony.
1987	Promotion C.R.1
1988-1989	Professor at Wuhan University, China
1993	Professor at Cergy-Pontoise University
1999	Promotion Pr. 1 (first class professor CNU)
2002	Professor at ENSAE
9/2008	Professor at Cergy-Pontoise University (Prime PEDR)
9/2009	Promotion Pr. Ex (Exceptional class professor CNU).
9/2011	Nomination as a Senior member of IUF (top 3% of French Academics)
10/2011	Elected member at CNU section 26 (National council of university for applied mathematics)
9/2012	Promotion Pr. EX 2 (highest promotion in France)
6/2013	Member of ANR LoLiTa http://lolita.isfa.fr/, Dynamic models for human Longevity with Lifestyle Adjustments
6/2014	Organization of a conference devoted to my 60th birthday (June 3-5).
6/2018	Organization of the nonstationary conference (June 4-6). https://www.u-cergy.fr/fr/laboratoires/agm/actualites-du-laboratoire/conference-on-non-stationarity.html
2018-2019	Organization of the nonstationary days (December 12/February 13/ March 7/June 3). https://www.u-cergy.fr/fr/laboratoires/agm/actualites-du-laboratoire/nonstationary-day.html
2020-2024	Grant of AAP-CYU, EcoDep https://www.researchgate.net/project/Eco-Dep funded 400k€, the project meets 22 researchers spread around the world.

PhD Students

1990-1993	**Philippe SOULIER**, Some problems of functional estimation under different dependence frameworks. *Exceptional Class Professor Univ. Paris 10.*
1991-1994	**Patrick ANGO NZE**, Non-parametric estimation under mixing conditions. *Mcf. Lille.*
1993-1996	**Ricardo RIOS**, Qualitative tests of goodness-of-fit, Estimation of functions and of their differentials under weak dependence. *Professor University Central of Venezuela, Caracas.*
1993-1996	**Caren LUDENA**, Minimax estimation of functionals of a spectral density *(codirection J. R. Léon, Caracas). Professor University Central of Venezuela, Caracas.*
1995-1997	**Samir BENHARIZ**, Long range dependence and applications. *MCf University le Mans.*
1995-1998	**Sana LOUHICHI**, Weak and positive dependence ; properties and statistical applications. *First class professor University Grenoble.*

1998-1999 **Ali KHEZOUR**, Long range dependence and limit theory. *Computer engineer.*

1998-2002 **Clémentine PRIEUR**, Weak dependence and dynamical systems; statistical applications. *First class professor University Grenoble.*

2002-2006 **Nicolas RAGACHE**, Asymptotic properties of polls under dependence. *Lawyer Vietnam.*

2004-2007 **Olivier WINTENBERGER**, Weak dependence in statistics *(cotutored with J.M Bardet) Pr. University Paris 6.*

2004-2006 **Gilles TEYSSIERE**, Long range dependence and applications in statistics and in finance. *Habilitation.*

2004-2006 **Stéphanie DUPOIRON.** Subsampling under weak dependence conditions. Hambourg.

2006-2008 **Lionel TRUQUET**, Weakly dependent processes and random fields. *MCf-HDR ENSAI.*

2006-2010 **Nathanael MAYO**, Monitoring execution riskon financial markets : estimation of correlation matrices*, Cifre contract Exane-BNP-Paribas-University Paris 1 CALYON, data scientist.*

2009-2012 **Cai SIXIANG**. Bootstraping extreme statistics for financial applications. *Codirection with J. L. Prigent and Olivier Wintenberger. Bank accounter.*

2010-2014 ***Xiaoyin* LI.** Learning and dependence. Aggregation of estimations under dependence, application to the French economic index. Application of learning to DNA sequencing. *Thesis Cergy UCP. Assistant Professor University of Minesota.*

2012-2017 **Jose GOMEZ.** Clustering in extreme values theory for random processes. *Thesis Cergy UCP. PostDoc CAEN.*

2014-2017 **Ieva GRUBLYTE**. Modeling financial time series. *Cotutored thesis with D. Surgailis Vilnius. Data scientist Paris.*

2018 **Remy GARNIER**. *Modelling stocks in online retail. Cotutored thesis with J. Rynkiewicz, Cdiscount.*

2019 **Raphaël Langhendries.** *Reliability of planes engines. Cotutored thesis with J. Rynkiewicz, Safran.*

2020 **Ousmane Boly.** *Effects of Hawkes random sampling over the estimation of Lévy driven processes.Cotutored thesis with J.-L. Prigent.*

C. Some related publications

Mixing: properties and examples, Lecture Notes in Statistics 85, Springer-Verlag (1994).

Theory and Applications of Long-range Dependence, Paul Doukhan, Georges Oppenheim and Murad S. Taqqu editors (718 pages) Birkhaüser, Boston (2003).

Weak dependence: models, theory and applications (350 pages), Lecture Notes 190 in Statistics, Springer-Verlag, with G. Lang, C. Prieur, S. Louhichi, J. Dedecker, J. R. Leon (2007).

Stochastic Models for Time Series. 330 pages. Springer, Mathematics and Applications 80 (2018).

with A. Jakubowski, G. Lang. Phantom distribution functions for some stationary sequences. Extremes 16, 147–171 (2015).

with I. Grublyte, D. Surgailis. A nonlinear model for long memory conditional heteroscedasticity. Lithuanian Journal of Mathematics 56 (2), 164-188 (2015).

with A. Jakubowski, S. Lopes, D. Surgailis. Discrete time trawl processes. Stochastic Processes and Applications 129- 4, 1326-1348 (2019).

with G. Lang. Weak dependence of point processes and application to second order statistics. Statistics 50 (6), 1221-1235 (2016).

with A. Jakubowski, S. Lopes, D. Surgailis. Discrete time trawl processes. Stochastic Processes and Applications 129- 4, 1326-1348 (2019).

with Roueff, F., Rynkiewicz, J. Estimation of discrete time long memory trawl models. Electronic Journal of Statistics, vol 14-2, 3157-3191 (2020).