Peter Martey Addo

General Information

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IDEAS RePEc: http://ideas.repec.org/e/pad121.html

Address (Professional): Bureau 602. Centre d'Economie de la Sorbonne, 106-112 boulevard de l'hopital, 75647 Paris Cedex 13, France.

Research Interest

Applied Econometrics, Financial Econometrics, Nonlinear Time Series Analysis, Business Cycles, Interdisciplinary Research (Statistical Physics & Econometrics), Financial Networks and Systemic Risk Analysis

Current Position

Postdoctoral Research Fellow (CNRS–UMR8174)

Centre National de la Recherche Scientifique (CNRS) — Sept 2014 - Present

"SYstemic Risk TOmography: Signals, Measurements, Transmission Channels, and Policy Interventions" (SYRTO) Project.

Education

Diplôme de Docteur en Mathématiques Appliquées (Ph.D in Applied Mathematics)

Université Paris 1 Panthéon Sorbonne, France — Sept 2011 - May 2014

Dottore di ricerca in Economia (Ph.D in Economics)

University Cá Foscari of Venice, Italy — Sept 2011 - May 2014

Master Mathematiques Appliquees a l'Economie et a la Finance

spécialité Modelisation et Methodes Mathmatiques en Economie et Finance, **mention**: *Trés Bien.*

Université Paris 1 Panthéon Sorbonne, France — Sept 2009 - July 2011

Laurea Magistrale in Economia (Master in Economics), **mention**: *110/110 Cum Laude*

University Cá Foscari of Venice, Italy — Sept 2009 - June 2011

Bachelor of Science in Mathematics, **Class of Degree:** *First Class Honors*

Kwame Nkrumah University of Science and Technology, Ghana. — Aug 2004 - June 2008.

Publications

1. **Addo, P. M.**, Billio, M., Guégan, D. (2013). *"Nonlinear Dynamics and Recurrence Plots for Detecting Financial Crisis"*, The North-American Journal of Economics and Finance, Volume 26, December 2013, Pages 416–435. http://dx.doi.org/10.1016/j.najef.2013.02.014.

2. **Addo, P. M.**, Billio, M., D. Guégan (2014). *"The Univariate MT-STAR Model and a new linearity and unit root test procedure"*. Computational Statistics & Data Analysis (CSDA). http://dx.doi.org/10.1016/j.csda.2013.12.009.

3. **Addo P.M.**, M. Billio, D. Guégan (2014), *"Turning point chronology for the Euro–Zone: A Distance Plot Approach"*. Journal of Business Cycle Measurement & Analysis. http://dx.doi.org/10.1787/jbcma-2014-5jxwz80d73q8.

4. **Addo, P. M.**, Billio, M., D. Guégan (2014). *"Nonlinear Dynamics and Wavelets for Business Cycle Analysis"*. In Marco Gallegati and Willi Semmler (Eds.), "Wavelets Applications in Economics and Finance", Dynamic Modeling and Econometrics in Economics and Finance Volume 20, pp 73–100. Springer Series. http://dx.doi.org/10.1007/978-3-319-07061-2_4.

5. **Addo, P. M.**, Billio, M., Guégan, D. (2012), *"Understanding exchange rate dynamics"*, In A. Colubi, K. Fokianos, & E. J. Kontoghiorghes (Eds.), Proceedings of the 20th International Conference on Computational Statistics, pp. 1–14. Curran Associates, Inc. ISBN: 978-1-62748-321-6 .

Selected Working Papers

1. "Detection and quantification of causal dependencies in multivariate time series: a novel information theoretic approach to understanding systemic risk" (joint with de Peretti P.)(2014)

2. Addo P.M., *"Multivariate Self–Exciting Threshold Autoregressive Models with eXogenous Input"*. Papers 1407.7738, arXiv.org (2014)

3. "Change-Point Detection and Bayesian Graphical Models for Vector Signals". (joint with Ahelegbey, D. F.). (2013)

Working Experience

Instructor, Université Paris 1, Panthéon-Sorbonne, France

R for Statistical Modelling in Finance, *Summer School on Statistical and Numerical Finance*, June–July, 2012 & 2013.

Teaching Assistant, Department of Mathematics, KNUST, Ghana

Probability and Statistics II, Design of Experiments, Statistics for Computer Science I, Biological Sciences, Spring 2009. Regression Analysis, Probability and Statistics I, Fall 2008.

Erasmus Mundus PhD Research Fellow Sept 2011 - Aug 2014

Centre d'Économie de la Sorbonne (CES) – Université Paris 1, Panthéon-Sorbonne, France.

Dipartimento di Economia, Università Cà Foscari di Venezia, Italy.

Selected Conference and Seminar Presentations

34th International Symposium on Forecasting (ISF 2014), Rotterdam, Netherlands, June 29 – July 2, 2014.

7th CSDA International Conference on Computational and Financial Econometrics (CFE 2013), Senate House, University of London, UK, 14–16 December 2013.

EBIM-EDEEM-Paris1 Doctoral School Jamboree at the Center for Operations Research and Econometrics (CORE), Université Catholique de Louvain (UCL), Louvain-La-Neuve, Belgium, 8–10 July 2013.

6th CSDA International Conference on Computational and Financial Econometrics (CFE 2012), Conference Centre Oviedo, Spain, 1–3 December 2012.

20th International Conference on Computational Statistics (COMPSTAT 2012), Amathus Beach Hotel, Limassol, Cyprus, 27–31 August 2012.

EBIM-EDEEM-Paris1 Doctoral School Jamboree, Université Paris 1 Panthéon-Sorbonne, 11–12 July, 2012.

Econometrics Internal Seminar at the *Center for Operations Research and Econometrics* (CORE), Université Catholique de Louvain (UCL), Louvain-La-Neuve, Belgium, 30 May, 2012.

Fifth International MAF 2012 Conference – Mathematical and Statistical Methods for Actuarial Sciences and Finance, Venice, Italy, 10–12 April, 2012.

Second International Symposium in Computational Economics and Finance (ISCEF 2012), El Mouradi Gammarth, Tunis, Tunisia, March 15–17, 2012.

5th CSDA International Conference on Computational and Financial Econometrics (CFE 2011), Senate House, University of London, UK, 17–19 December 2011.

Université Paris 1, Panthéon Sorbonne, Maison des Sciences Economiques (MSE), MMEF-QEM-EDEEM Graduation Ceremony (2011), Chaired by Edward C. Prescott, July 8, 2011.

Selected Short Visits, Conferences and Workshops Attended

International Conference on Mathematics and Its Applications (NIMS-Ghana), University of Ghana, Department of Mathematics, Legon, Accra, Ghana, June 16–20, 2009.

Visiting Scholar, International Doctorate in Economic Analysis (IDEA), Universitat Autonoma de Barcelona, Spain, August–December, 2009.

4th International Conference of the ERCIM (European Research Consortium for Informatics and Mathematics) Working Group on Computing & Statistics (ERCIM 2011), Senate House, University of London, UK, 17–19 December 2011.

The *Center for Operations Research and Econometrics* (CORE), Université Catholique de Louvain (UCL), Louvain-La-Neuve, Belgium.

- Research Group: Econometrics Team. Short visit: 29 May, 2012 - 2 June, 2012.
- Purpose: Seminar and discussion with Econometrics Team. Pr. Sébastien Van Bellegem

Summer Workshop in Economic Theory (SWET 2012), Paris School of Economics (PSE) – Université Paris 1 Panthéon-Sorbonne, Paris, France, 9–10 July, 2012.

5th International Conference of the ERCIM Working Group on Computing & Statistics (ERCIM 2012), Conference Centre Oviedo, Spain, 1–3 December 2012.

Workshop on "Statistical modeling, financial data analysis and applications", Istituto Veneto di Scienze Lettere ed Arti, Palazzo Franchetti, Venice, Italy, 11–14 September 2013.

12th International Conference on Credit Risk Evaluation Designed for Institutional Targeting in finance, Scuola Grande di San Giovanni Evangelista, Venice, Italy, 26–27 September, 2013.

6th International Conference of the ERCIM (European Research Consortium for Informatics and Mathematics) Working Group on Computing & Statistics (ERCIM 2013), Senate House, University of London, UK, 14–16 December 2013.

Professional Activities

Reviewer for *Economic Modelling*, *Studies in Nonlinear Dynamics & Econometrics*, *Journal of Business Cycle Measurement & Analysis*, *Computational Economics*.

Professional Networks: *Member, International Institute of Forecasters (IIF), April 2014–Present. Member, Euro Area Business Cycle Network (EABCN), 2013–Present. Member, ERCIM WG on Computational and Methodological Statistics (CMStatistics), 2013–Present. Member, Computational and Financial Econometrics Network (CFEnetwork), 2013–Present. Member, The Statistics and Probability African Society (SPAS), 2012–Present. Member, Erasmus Mundus Students and Alumni Association (EMA), 2009–Present.*

EMA Course Representative: European Doctorate in Economics–Erasmus Mundus (EDEEM), 2012–2013, 2014–Present.

Initiator and Management Team member of the EMA PhD Network, 2012–Present.

Vice-President, QEM Erasmus Mundus Students and Alumni Association, 2012–2013.

President, QEM Erasmus Mundus Students and Alumni Association, 2013–2014.

Honors, Awards, & Fellowships

Erasmus Mundus Doctoral Fellowship	2011 - 2014
Erasmus Mundus Scholarship for QEM Master	2009 - 2011
First Class Honors, BSc. Mathematics KNUST	June, 2008
Best Students Award, College of Science KNUST	June, 2007
Leadership Awards, Church of Christ KNUST	2006, 2007, and 2008

Miscellaneous

Scientific Applications : Matlab, Gretl, R, SPSS, Stata, LaTeX (Kile)

Languages : English, French (Intermediate), Italian (Intermediate), Spanish (basic).

References

Prof. Monica Billio
Full Professor in Econometrics
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University Cá Foscari of Venice
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Phone: (+39) 041 2349170

Prof. Michael Rockinger
Full Professor in Finance
Department of Finance
Université de Lausanne
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Prof. Bernard Cornet
Full Professor in Mathematics
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Prof. Philippe De Peretti
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Prof. Massimiliano Caporin
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