Daniel Felix Ahelegbey (Ph.D.)

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LINKS

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PROFESSIONAL SUMMARY

A result-oriented financial econometrician with expertise in macroeconomics, financial markets, data science, risk analytics and experienced in advancing data-driven techniques to solve analytical problems.

EDUCATION AND CREDENTIALS

Joint PhD in Economics and Doctor Europaeus,
Universities of Venice, Padova, and Verona, (Italy), Sept 2011 - July 2015

Joint Master, Applied Mathematics and Quantitative Economics,
Universities of Paris 1 Pantheone-Sorbonne, (France) & Venice, (Italy), Sept 2009 - July 2011

Bachelor of Arts, Economics and Mathematics,
University of Ghana, (Ghana), Aug 2003 - May 2007

PROFESSIONAL EXPERIENCE

Assistant Professor - Financial Mathematics,
University of Pavia (Italy), May 2019 - Present

- Instruct graduate courses in Applied Finance, Quantitative Finance, Decisions and Choices, and, Decisions for Finance, using R and Matlab.

Visiting Assistant Professor,
African School of Economics (Benin), Sept 2018 - Dec 2018

- Instruct graduate courses in Mathematical Statistics, Networks and Systemic Risk, Finance, and Time Series Analysis using R.

Visiting Assistant Professor,
University of Pavia (Italy), Nov 2017 - Dec 2017

- Instructed master and PhD course within a business curriculum specializing in networks and systemic risk using statistical software tools (such as Matlab and R).

Postdoctoral Associate, (Advisor : Prof. Eric Kolaczyk)
Boston University (USA), Sept 2015 - Aug 2017

- Developed a network methodology to analyze channels of financial contagion via a latent position models. Led undergraduate class on applied mathematics for social and management sciences.

Visiting Assistant Professor,
University of Pavia (Italy), Nov 2016 - Dec 2016

- Instructed master and PhD course within a business curriculum specializing in networks and systemic risk using statistical software tools (such as Matlab and R).

Research Fellow,
University of Venice (Italy), Sept 2014 - Aug 2015

- Developed an econometric method to analyze structural trends in financial and economic systems and their consequence for global systemic vulnerabilities.

Research Assistant,
University of Venice (Italy), Sept 2011 - Aug 2014,

- Developed a Bayesian graphical VAR model and an efficient MCMC algorithm for model selection to address inferential difficulties in financial network modeling.

Visiting Researcher, (Advisor : Prof. Siem Jan Koopman)
Vrije University of Amsterdam (Netherlands), Jan 2014 - Aug 2014

- Contributed to the development and application of network models for quantification of systemic vulnerabilities as part of the SYstemic Risk TOmography (SYRTO) Project

Visiting Researcher, (Advisor : Prof. Paolo Giudici)
University of Pavia (Italy), Sept 2013 - Dec 2013

- Developed a hierarchical models that decomposes risk channels between banking institutions into country effects and idiosyncratic channels within and/or across countries.

Visiting Researcher, (Advisor : Prof. Fabrizio Lillo)
Scuola Normale Superiore, Pisa (Italy), Oct 2012 - May 2013

- Developed a copula network model for structural analysis for financial time series data of binary, ordinal and continuous observations.

Teaching Assistant,
University of Ghana (Ghana), Sept 2007 - Aug 2009

- Used thought-provoking classroom discussions in algebra, calculus, and applied general mathematics to help students develop their critical thinking abilities.

SKILLS / COMPETENCIES

Active Listening	Finance	Management Skills	Public Speaking
Applied Econometrics	Independent Work Skills	Mathematics	Quantitative Skills
Communication	Interpersonal Skills	Microsoft Office	R (R Markdown)
Computer Skills	LaTeX	Policy-oriented Research	STATA
Econometrics	Leadership	PowerPoint	Statistics
Empirical Research	Lecturing/Teaching	Problem-Solving	Teamwork

JOURNAL PUBLICATIONS

Factorial Network Models To Improve P2P Credit Risk Management, (2019)
Ahelegbey DF, Giudici P, Hadji-Misheva B, *Frontiers in Artificial Intelligence, 2 (8)*

Latent Factor Models for Credit Scoring in P2P Systems, (2019)
Ahelegbey D, Giudici P, Hadji-Misheva B, *Physica A: Statistical Mechanics & Applications, 522:112-121*

Detecting Spatial and Temporal House Price Diffusion in the Netherlands: A Bayesian Network Approach, (2017) Teye AL, Ahelegbey DF, *Regional Science & Urban Economics, 65, 56-64*

Bayesian Graphical Models for Structural Vector Autoregressive Processes, (2016)
Ahelegbey DF, Billio M, Casarin R, *Journal of Applied Econometrics, 31 (2), 357-386*

The Econometrics of Bayesian Graphical Models: A Review with Financial Application, (2016)
Ahelegbey DF, *Journal of Network Theory in Finance, 2 (2), 1-33*

Sparse Graphical Vector Auto Regression: A Bayesian Approach, (2016)
Ahelegbey DF, Billio M, Casarin R, *Annals of Economics and Statistics, 123/124, 333-361*

Bayesian Selection of Systemic Risk Networks, (2014)
Ahelegbey DF, Giudici P, *Advances in Econometrics: Bayesian Model Comparison, 34, 117-153*.

BOOK CHAPTERS & PROCEEDINGS

Spatial and Temporal House Price Diffusion in the Netherlands: A Bayesian Network Approach
Teye AL, Ahelegbey DF, *In 24th Annual European Real Estate Society Conference, (2017).*

Sparse Bayesian Graphical Vector AutoRegression for Risk Analysis
Ahelegbey DF, Billio M, Casarin R, *In JSM Proceedings, Statistical Computing Section. Alexandria VA: American Statistical Association, (2016).*

Sparse BGVAR models for Systemic Risk Analysis
Ahelegbey DF, Billio M, Casarin R, *Statistics and Demography: The Legacy of Corrado Gini, (2015).*

MANUSCRIPTS / WORKING PAPERS

Spatial VAR Network Models to Measure Contagion Risk in International Banking,
Ahelegbey DF, and Giudici P

A Bayesian Covariance Graphical and Latent Position Model for Multivariate Financial Time Series,
Ahelegbey DF, Carvalho L, and Kolaczyk ED

Modeling Risk Contagion In Energy Markets,
Ahelegbey DF, Fianu ES and Grossi L

Change-Point Bayesian Graphical Vector Autoregressive Models,
Ahelegbey DF, Billio M, and Casarin R

Tree Networks to Assess Financial Contagion,
Ahelegbey DF, Agusto A, and Giudici P

Hierarchical Graphical Models With Application to Systemic Risk,
Ahelegbey DF and Giudici P

Bayesian Graphical Models With Economic and Financial Applications - Ph.D. Thesis
Supervisors: Prof. Monica Billio and Prof. Roberto Casarin

PROFESSIONAL ASSOCIATIONS

American Statistical Association

Boston University Post-Doctoral Association

Ca’ Foscari Alumni Association

Computational & Financial Econometric Network

Erasmus Mundus Students & Alumni Association

Italian Econometrics Association

The Econometric Society

GRANTS, FELLOWSHIPS, AND SCHOLARSHIPS

European Union's EU Fin-Tech Horizon 2020 Project	2019 - 2020
African Econometric Society (AfES) - Travel and Subsistence Grant	2018
Pavia-Boston Exchange Program Grant (for Visiting Professor Position)	2016, 2017
European Union Grant for SYstemic Risk TOmography (SYRTO) Project	2014 - 2015
Italian Ministry of Education, University and Research PRIN Grant, MISURA	2014 - 2015
PhD Scholarship, University Cá Foscari of Venice, Italy	2011 - 2014
International Center for Theoretical Physics (ICTP), Trieste - Travel and Subsistence Grant	2012
Erasmus Mundus Scholarship, Models, and Methods of Quantitative Economics	2009 - 2011
Recipient of Brilliant Students Fund, University of Ghana, Legon, Ghana	2006 - 2007
Recipient of Government Bursary Scholarships, Tema Secondary School, Ghana	2000 - 2002

TALKS, CONFERENCES AND WORKSHOPS

Regtech Workshop II Big Data Analytics, P2P Lending & Credit Risk, Frankfurt, Germany	Jun 28, 2019
Poverty Reduction, Equity and Growth Network (PEGNet 2018), Cotonou, Benin	Oct 11-12, 2018
Africa Meeting of the Econometric Society (AfES 2018), Cotonou, Benin	Jul 12-14, 2018
Allied Social Science Association (ASSA 2017) Meeting, Chicago, USA	Jan 6-8, 2017
Duke Statistical Science seminar, Duke University, Durham, USA	Oct 14, 2016
6th Annual Workshop, Boston and Keio University (BU-KEIO), Boston, USA	Aug 15-19, 2016
Joint Statistical Meeting (JSM 2016), Chicago, USA	Jul 30 - Aug 4, 2016
10th Annual Workshop, Bologna, Modena, Padova and Venice, Modena, Italy	Mar 27, 2015
6th Italian Congress of Econometrics and Empirical Economics, Salerno, Italy	Jan 21-23, 2015
1st European Winter Meetings of the Econometric Society, Madrid, Spain	Dec 15-16, 2014
8th International Conference on Computational and Financial Econometrics, Pisa, Italy	Dec 6-8, 2014
Workshop on Networks in Economics and Finance, Louvain-la-Neuve, Belgium	Dec 5, 2014
29th Annual Congress of the European Economic Association, Toulouse, France	Aug 25-29, 2014
34th Intl. Symposium on Forecasting (ISF 2014), Rotterdam, Netherland	Jun 29 - Jul 2, 2014
Quantitative Economics Doctorate (QED 2012) Conference, Bielefeld, Germany	May 2-3, 2014
7th Intl. Conference on Computational and Financial Econometrics, London, UK	Dec 14-16, 2013
Statistics and Econometrics of Networks, Stats in Paris, ENSAE - Paris, France	Nov 21-22, 2013
Multivariate statistical models for risk assessment (MISURA), Venice, Italy,	Sept 25, 2013
Forecasting Financial Crises with Complex Financial Networks, IMT - Lucca, Italy	Oct 24-27, 2012
Bayesian Methods in Economics & Finance, Bertinoro, Italy	Sept 10-15, 2012
Concepts in Large Scale Problems in Machine Learning, ICTP - Trieste, Italy	Aug 20-31, 2012
Summer Workshop in Economic Theory (SWET 2012), Paris, France	July 9-10, 2012
5th Intl. Conference, Math & Stats Methods for Actuarial & Finance, Venice, Italy	April 10-12, 2012