Leopoldo Catania
Curriculum Vitae

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Education and Qualifications

2014 - ongoing	Ph.D. candidate Economics & Finance	University of Rome, "Tor Vergata"
2014 - 2015	Graduate Program	EIEF
2012 - 2014	M.Sc. Finance (110/110 cum laude)	Sapienza University of Rome
2009 - 2012	B.Sc. Economics & Finance	Sapienza University of Rome

Visiting Periods

2017/03	Université de Neuchâtel (UNINE)	Neuchâtel	*(1 weeks)*
2016/11	Université de Neuchâtel (UNINE)	Neuchâtel	*(2 weeks)*
2016/07	Vrije Universiteit Brussel (VUB)	Bruxelles	*(1 week)*
2016/01 - 2016/03	Vrije Universiteit (VU)	Amsterdam	*(3 months)*

Publications

Catania, L. and Billé, A.G. (2017), "Dynamic Spatial Autoregressive Models with Autoregressive and Heteroskedastic Disturbances" , **Journal of Applied Econometrics**, DOI: https://doi.org/10.1002/jae.2565.

Catania, L. and Nonejad, N. (2017), "Dynamic Model Averaging for Practitioners in Economics and Finance: The eDMA Package", **Journal of Statistical Software** *(accepted for publication)*, *Preprint arXiv:1606.05656 [stat.CO]*,

Bernardi, M. and Catania, L. (2016), "Comparison of Value-at-Risk models using the MCS approach", **Computational Statistics**, DOI:10.1007/s00180-016-0646-6.

Bernardi, M. and Catania, L. and Petrella, L. (2016), "Are News Important to Predict The Value–at–Risk ?", **The European Journal of Finance**, DOI: 10.1080/1351847X.2015.1106959.

Bernardi, M. and Catania, L. (2016), "The Model Confidence Set package for R", **International Journal of Computational Economics and Econometrics** *(Forthcoming)*, *Preprint arXiv:1410.8504 [q-fin.ST]*, .

Papers submitted to journals

Ardia, D., Boudt, K. and Catania, L. (2016). "Generalized Autoregressive Score Models in R: The GAS Package."*(R&R Journal of Statistical Software)* Available at SSRN: http://ssrn.com/abstract=2825380.

Ardia, D., Boudt, K. and Catania, L. (2016). "Value–at–Risk Prediction and Assessment in R with the GAS Package."*(Under Review)* Available at SSRN: http://ssrn.com/abstract=2871444.

Catania, L. (2016), "Dynamic Adaptive Mixture Models", *(R&R Journal of Financial Econometrics)*, *Preprint arXiv:1603.01308 [stat.ME]*, .

Catania, L. and Nonejad N. (2016), "Density Forecasts and the Leverage Effect: Some Evidence from Observation and Parameter–Driven Volatility Models ", *(Under review)*, *Preprint arXiv:1605.00230 [stat.AP]*

Bernardi, M. and Catania, L. (2015), "Switching GAS Copula models with application to systemic risk", *(R&R Journal of Applied Econometrics)*, *Preprint arXiv:1504.03733v3 [stat.ME]*

Bernardi, M. and Catania, L. (2015), "Portfolio Optimisation Under Flexible Dynamic Dependence Modelling",*(Under review)*, *Preprint arXiv:1601.05199 [q-fin.PM]*

Working Papers

Ardia, D., Bluteau, K., Boudt, K. and Catania, L. (2016). “Large scale forecasting performance of Markov–switching GARCH models.”*(Working Paper)*. Available at SSRN: https://ssrn.com/abstract=2918413.

Catania, L. and Proietti T. (2016), “Adaptive Combination Schemes for Point and Density Forecasts”, *Working Paper.*

Catania, L. and Gorgi P. (2016), “Clustered Switching Predictive Density Combinations”, *Working Paper.*

Billé, A.G. and Catania, L. (2016), “Dynamic Spatial Weighting Matrices”, *Working Paper.*

Bernardi, M. and Catania, L. (2015), “Portfolio optimization under Dynamic Asymmetric Laplace Hidden Markov models”, *Working Paper.*

Catania, L. (2014), “Dynamic Conditional Volatility Models for Risk Assessment”, *Unpublished manuscript.*

Conferences and Talks

01/2017	ICEEE 2017	Dynamic Adaptive Mixture Models
01/2017	RES PhD 2017	Dynamic Adaptive Mixture Models
12/2016	CFE2016	Adaptive Combination Schemes for Point and Density Forecasts
11/2016	Narodowy Bank Polski 2016	Adaptive Combination Schemes for Point and Density Forecasts
09/2016	PRIN Conference 2016	Dynamic Adaptive Mixture Models
06/2016	IFS2016	Adaptive Combination Schemes for Point and Density Forecasts
06/2016	IAAE2016	Dynamic Adaptive Mixture Models
07/2016	IWcee16	Dynamic Adaptive Mixture Models
05/2016	Belgian Financial Research Forum	Dynamic Adaptive Mixture Models
03/2016	MAF2016	Dynamic Adaptive Mixture Models
12/2015	ERCIM2015	Sequential MCMC with Multiple Adaptive Proposals
11/2015	PRIN Workshop 2015	Flexible Adaptive Dynamic Mixture Models With Applications
09/2015	Narodowy Bank Polski 2015	Switching–GAS Copula models for systemic risk assessment
09/2015	Bolzano Risk School	Portfolio optimization under Dynamic Asymmetric Laplace Hidden Markov models
08/2015	3rd CidE WEEE	Portfolio Optimisation Under Flexible Dynamic Dependence Modelling
06/2015	8th SoFiE Conference	Switching–GAS Copula models for systemic risk assessment (*poster*)
05/2015	11th BMRC-DEMS	Switching–GAS Copula models for systemic risk assessment
12/2014	ERCIM2014	Switching–GAS Copula models for systemic risk assessment
05/2014	MAF2014	Do firm specific and macro related news affect extreme financial returns ?

Seminars

04/2017	Sapienza University	The Model Confidence Set: Implementation in R
02/2017	Monash University	Dynamic Adaptive Mixture Models
01/2017	UC3M	Dynamic Adaptive Mixture Models
01/2017	Erasmus University	Dynamic Adaptive Mixture Models
01/2017	Aarhus University	Dynamic Adaptive Mixture Models
11/2016	Finance seminars University of Neuchâtel	Dynamic Adaptive Mixture Models
10/2016	Tor Vergata Lunch Seminar	Leverage Consistent Risk Measures
02/2016	Tor Vergata Lunch Seminar	Dynamic Adaptive Mixture Models
02/2016	Econometrics Brown Bag Seminar, VU	Dynamic Adaptive Mixture Models
10/2015	Tor Vergata Informal Time Series (TVITS)	Advances in Nonlinear Dynamic Dependence Modelling

Next Talks

05/2017	R/Finance 2017	Generalized Autoregressive Score Models in R: The GAS Package
06/2017	10th SoFiE	Dynamic Adaptive Mixture Models
06/2017	37th ISF	Forecasting Realized Volatility and the Role of Time–Varying Dependence with Market Retu
12/2017	CFE 2017	Generalized Autoregressive Score Models in R: The GAS Package

Workshops

09/2016	High–Frequency Trading, Curse or Blessing ?	Unversität Wien
11/2015	University of Bologna	PRIN Workshop
08/2015	SADiBa	3rd CidE Econometrics and Empirical Economics (WEEE)
10/2014	EIEF	10th Annual Central Bank Workshop on the Microstructure of Financial Markets

Other relevant courses and schools

07/2015	National Bank of Belgium	SoFiE Financial Econometrics Summer School 2016	Prof. Christian Gouriroux Prof. Jean–Michel Zakoian
05/2015	EIEF	All you want to know about Dynamic Factor Models	Prof. Marco Lippi
05/2016	University of Rome “Tor Vergata”	High–Dimensional Covariance Estimation with Applications	Prof. Mohsen Pourahmad
04/2016	University of Rome “Tor Vergata”	Bayesian Time Series Econometrics	Prof. Dimitris Korobilis
09/2015	Free University of Bolzano–Bozen	Risk School	Prof. Fabrizio Durante
06/2015	Bank of Italy	Predictive Modeling and Forecast Evaluation in Financial Markets	Prof. Allan Timmermann
05/2015	EIEF	Spectral Density Representation of Stochastic Processes	Prof. Marco Lippi
05/2015	University of Rome “Tor Vergata”	State Space Modeling	Prof. Tommaso Proietti
09/2014	University of Padova	Time Series Analysis	Prof. Siem Jan Koopman
11/2013	University of Rome “La Sapienza”	International School of Text Mining	Prof. Sergio Bolasco

Teaching experiences

04/2016 - 05/2016 : Financial Econometrics - Computer Labs

Computer labs during the Financial Econometrics course for second level master students at “Tor Vergata” , University of Rome.

03/2014 - 06/2014 : Primi Passi nell’Econometria: Problemi economici e risposte statistiche - 2014

A 22 hours course for undergraduate students belonging to the “Excellence in Corporate Finance” program more info and details here and here

03/2013 - 06/2013 : Primi Passi nell’Econometria: Problemi economici e risposte statistiche - 2013

A 24 hours course for undergraduate students belonging to the “Excellence in Corporate Finance” program more info and details here and here

2013 - 2014 : Teaching assistant Prof. Giovanni Palomba

Supervision for B.Sc. and M.Sc applied thesis in Corporate Finance and International Finance.

Grants and Awards

2017 : SAS-IIF Research Award - Methodology
2017 : ICEEE 2017 Best paper in Financial Econometrics (Carlo Giannini Prize, offered by SIdE)
2016 : Google summer of code, R package “GAS”
2014 : Phd Scholarship

Other relevant experiences

03/2014 - 04/2017 : Econometric Games 2017

Team leader of the Econometric Games 2017 organized by the VSAE, the study association for students in Econometrics & Operational Research and Actuarial Science at the University of Amsterdam .

06/2016 : Stat Under the Stars[2]

Statistical competition organised by the Italian Statistical Society.

03/2016 - 04/2016 : Econometric Games 2016

Team leader of the Econometric Games 2016 organized by the VSAE, the study association for students in Econometrics & Operational Research and Actuarial Science at the University of Amsterdam .

03/2015 - 04/2015 : Econometric Games 2015

Player of the Econometric Games 2015 organized by the VSAE, the study association for students in Econometrics & Operational Research and Actuarial Science at the University of Amsterdam .

01/2014 - 05/2014 : FMC 2013

Player of the 3rd edition of the Fund Management Challenge organized by the Italian CFA Society and sponsored by Morgan Stanley and FactSet.

11/2013 - 08/2014 : Market Simulation Organizer

Organizer of an investment simulation for the best 50 students of the Corporate Finance course held at "La Sapienza" University. More info `http://www.finanzasapienza.org/it/studenti/pe/prodotti-pe.html`.

01/2013 - 05/2013 : FMC 2012

Team leader of the 2nd edition of the Fund Management Challenge organized by the Italian CFA Society and sponsored by Morgan Stanley and FactSet.

10/2012 - 02/2013 : GIRC 2012

Player of the CFA - Global Investment Research Challenge organized by the Italian CFA Society and sponsored by PricewaterhouseCoopers.

10/2012 - 02/2013 : EUROSTOXX50 Consensus

Organizer of the "EUROSTOXX50 Consensus" program where about 300 students were asked to send weekly investment decisions on the EUROSTOXX50 Index, more info at `http://www.finanzasapienza.org/it/studenti/ricerca/risultati-della-ricerca/consensus-analysis.html`.

09/2011 - 07/2014 : Excellence in Corporate Finance

Member of the "Excellence in Corporate Finance" program at "La Sapienza" University of Rome.

Professional Membership

Societá Italiana di Econometria	(SIdE)
The Society for Financial Econometrics	(SoFiE)
International Association for Applied Econometrics	(IAAE)
International Institute of Forecasting	(IIF)
Italian Statistical Society	(SIS)
Royal Economic Society	(RES)
Sapienza Finance Student Association	(SFSA)

Referee Activity

Served as referee for: *Applied Economics*, *Expert Systems With Applications*, *International Journal of Computational Economics and Econometrics*, *Journal of Banking and Finance*, *Journal of Business & Economic Statistics*, *Risks*, *Statistics & Probability Letters*, *Statistical Methods and Applications*.

Computer Code

GAS package for R : `http://cran.r-project.org/web/packages/GAS/index.html`
eDMA package for R : `http://cran.r-project.org/web/packages/eDMA/index.html`
MCS package for R : `http://cran.r-project.org/web/packages/MCS/index.html`

Research Fields

Financial Econometrics, Dynamic Dependence Modelling, Nonlinear Dependence, Higher order Moments, Dynamic Score Models, Multivariate Risk Measures, HMM, HSMM, Model Comparison, Optimal Dynamic Model Averaging, Portfolio Optimisation.

Computer Skills

R, R Studio, Office suite, Bloomberg workstation, FactSet workstation, Datastream, Eikon, VBA, Matlab, SPSS, WinEdt, LaTeX, Windows : xp,vista,7,8, UNIX: Ubuntu Server Edition

Language

Italian : mother tongue
English : fluent