Dante Amengual

CEMFI
Casado del Alisal 5
28014 Madrid - Spain

Phone: +34 914 290 551
Fax: +34 914 291 056
E-mail: amengual@cemfi.es

http:/www.cemfi.es/~amengual

Current Affiliation

Associate Professor with Tenure, CEMFI, Madrid, October 2015 – Present

Past Appointments

Assistant Professor, CEMFI, Madrid, September 2009 – September 2015

Education

Ph.D. in Economics, Princeton University, Princeton, 2009
M.A. in Economics, Princeton University, Princeton, 2006
M.Sc. in Economics and Finance, CEMFI, Madrid, 2004
B.A. in Economics, Universidad de la República, Montevideo, 2002

Research Fields

Econometrics: Approximate factor models, Hypothesis testing, Time series
Asset pricing: Risk-management, Predictability of stock returns, Mean-variance analysis
Financial econometrics: Volatility modeling, Financial derivatives
Macroeconomics: Macroeconometrics and structural models

Publications

Papers:

"The information matrix test for Gaussian mixtures", with Gabriele Fiorentini and Enrique Sentana, *Journal of Econometrics*, 255, 106234, May 2026.

"Score-type tests for normal mixture models", with Xinyue Bei, Marine Carrasco and Enrique Sentana, *Journal of Econometrics*, 248, 105717, March 2025.

"Specification tests for non-Gaussian structural vector autoregressions", with Gabriele Fiorentini and Enrique Sentana, *Journal of Econometrics* 244(2), 105803, September 2024

"Multivariate Hermite polynomials and information matrix tests", with Gabriele Fiorentini and Enrique Sentana, forthcoming in *Econometrics and Statistics*

"Highly irregular serial correlation tests", with Xinyue Bei and Enrique Sentana, forthcoming in *Econometrics and Statistics*

"GDP solera: the ideal vintage mix", with Martín Almuzara, Gabriele Fiorentini and Enrique Sentana, *Journal of Business and Economic Statistics*, 42 (3), pp. 984–997, July 2024.

"PML vs minimum χ^2: the comeback", with Gabriele Fiorentini and Enrique Sentana, *SERIEs* 14 (3–4), pp. 253–300, December 2023

"Normal but skewed?", with Xinyue Bei and Enrique Sentana, *Journal of Applied Econometrics* 37 (7), pp. 1295–1313, November/December 2022

"Moment tests of independent components", with Gabriele Fiorentini and Enrique Sentana, *SERIEs* 13 (1–2), pp. 429–474, May 2022

"Endogenous health groups and heterogeneous dynamics of the elderly", with Jesús Bueren and Julio A. Crego, *Journal of Applied Econometrics* 36 (7), pp. 878–897, December 2021

"Testing distributional assumptions using a continuum of moments", with Marine Carrasco and Enrique Sentana, *Journal of Econometrics* 218 (2), pp. 655–689, October 2020

"Is a normal copula the right copula?", with Enrique Sentana, *Journal of Business and Economic Statistics* 38 (2), pp. 350–366, April 2020

"Normality tests for latent variables", with Martín Almuzara and Enrique Sentana, *Quantitative Economics* 10 (3), pp. 981–1017, July 2019

"Resolution of policy uncertainty and sudden declines in volatility", with Dacheng Xiu, *Journal of Econometrics* 203 (2), pp. 297–315, April 2018

"Market-based estimation of stochastic volatility models", with Yacine Aït-Sahalia and Elena Manresa, *Journal of Econometrics* 187 (2), pp. 418–435, August 2015

"Sequential estimators of shape parameters in multivariate dynamic models", with Gabriele Fiorentini and Enrique Sentana, *Journal of Econometrics* 177 (2), pp. 233–249, December 2013

"A comparison of mean-variance efficiency tests", with Enrique Sentana, *Journal of Econometrics* 154 (1), pp. 16–34, January 2010

"Consistent estimation of the number of dynamic factors in a large N and T panel", with Mark W. Watson, *Journal of Business and Economic Statistics* 25 (1), pp. 91–96, January 2007

Comments and Contributions to Volumes:

"Information matrix tests for multinomial logit models", with Gabriele Fiorentini and Enrique Sentana, *Economic Letters* 247, 112180, February 2025.

"Tests for random coefficient variation in vector autoregressive models", with Gabriele Fiorentini and Enrique Sentana, in J.J. Dolado, L. Gambetti and C. Matthes (eds.) Essays in Honor of Fabio Canova: Advances in Business Cycle Analysis, Structural Modeling and VAR Estimation, *Advances in Econometrics* Vol. 44B, Emerald, pp 1–35, September 2022

"Gaussian rank correlation and regression", with Enrique Sentana and Zhanyuan Tian, in A. Chudik, C. Hsiao and A. Timmermann (eds.) Essays in Honor of M. Hashem, Pesaran, *Advances in Econometrics* Vol. 43B, Emerald, pp. 269–306, January 2022

Comments on "Reflections on the probability space induced by moment conditions with implications for Bayesian inference" by A. Ronald Gallant, with Enrique Sentana, *Journal of Financial Econometrics* 14 (2), pp. 248–252, Spring 2016

Working Papers

"The information matrix test for Markov switching autoregressions with covariate-dependent transition probabilities", with Gabriele Fiorentini and Enrique Sentana, CEMFI working paper 2502

"Education, lifestyles and Inequality", with Jesús Bueren and Josep Pijoan-Mas, CEPR discussion paper 19990

"Hypothesis tests with a repeatedly singular information matrix", with Xinyue Bei and Enrique Sentana, CEMFI working paper 2002

Resting Papers

"Testing a large number of hypotheses in approximate factor models", with Luca Repetto, CEMFI working paper 1410

"The term structure of variance risk premia", September 2008

Work in Progress

"Information matrix tests for switching regression models", with Gabriele Fiorentini and Enrique Sentana

"Testing shock independence in Gaussian structural VARs", with Gabriele Fiorentini and Enrique Sentana

"Score-type tests for Markov switching models", with Xinyue Bei, Marine Carrasco and Enrique Sentana

"The Information matrix tests for finite mixtures with covariate-dependent probabilities", with Gabriele Fiorentini and Enrique Sentana

"Financial contagion in the eurozone", with Julio A. Crego and Enrique Sentana

"Inference in multivariate dynamic models with elliptical innovations", with Enrique Sentana

Editorial Experience

Associate editor of *Journal of Econometric Methods*, 2023 – Present

Associate editor of *Journal of Econometrics*, 2022 – Present

Referee Experience

Biometrika, Econometrica, Econometric Theory, Econometrics Journal, Economic Letters, Empirical Economics, IMF Economic Review, International Journal of Central Banking, Journal of the American Statistical Association, Journal of Applied Econometrics, Journal of Banking and Finance, Journal of Business and Economic Statistics, Journal of Econometrics, Journal of Economic Dynamics and Control, Journal of the European Economic Association, Journal of Financial Econometrics, Journal of International Economics, Journal of Risk, Macroeconomic Dynamics, Oxford Bulletin of Economics and Statistics, Quantitative Economics, Review of Economic Studies, Review of Economics and Statistics, Review of Finance, Review of Financial Studies, SERIEs, SIAM-Journal of Financial Mathematics, Spanish Review of Financial Economics, Studies in Nonlinear Dynamics & Econometrics

Honors and Awards

Fellow of the *Journal of Econometrics*, 2025

Premio Morosoli a la cultura uruguaya, 2018, Fundación L. Rubial

Fernand Braudel Senior Fellowship, 2018, European University Institute

Juan de la Cierva Research Fellow, Spanish Ministry of Science and Innovation,
1st Ranked 2011 Contest

AEFIN-Criteria Caixa Corp prize to the best article of the conference,
XVII Finance Forum, 2009

Madrid Centro Financiero prize to the best article by a sole young author,
XVII Finance Forum, 2009

BME prize to the best article on derivatives, XVII Finance Forum, 2009

NSF award to attend the 2$^{\text{nd}}$ Lindau Meeting of Nobel Laureates in Economics, 2006

Extraordinary Prize, 2002–2004 Class at CEMFI, 2004

Highest GPA in the Economics Department, Universidad de la República, 2002

Doctoral Supervision

Advisor:

Joël Marbet: "Essays on macroeconomic policy", July 2023
Placement: Research Economist at Banco de España

Julio A. Crego: "Three essays in financial markets", June 2017
Placement: Assistant Professor (Finance) at Tilburg University

Luca Repetto: "Essays on panel data econometrics: local governments, politicians' incentives and inflation", June 2015
Placement: Assistant Professor (Economics) at Uppsala University

Committee Member:

Jesús Bueren: "Three essays on economics of aging", July 2018
Placement: Assistant Professor (Economics) at European University Institute

Examiner:

Bjarni Einarsson: Universitat Pompeu Fabra, October 2023

Miguel Ángel Cabello: Universidad Carlos III de Madrid, June 2023

Gudmundur Stefan Gudmundsson: Universitat Pompeu Fabra, July 2018

Julio Gálvez: Universidad Internacional Menéndez Pelayo, June 2018

Funded Research Projects

Ministerio de Ciencia e Innovación (2022–2025): "Inferencias en modelos con variables ocultas en macroeconomía y finanzas"
Principal Investigators: Dante Amengual (CEMFI) and Enrique Sentana (CEMFI), Funding: 69.841€

Ministerio de Ciencia e Innovación (2022–2025): Unidades de excelencia María de Maeztu
Principal Investigator: Diego Puga (CEMFI), Funding: 1.800.000€

Ministerio de Economía y Competitividad (2018–2020): "Más allá de la correlación: Dependencia no lineal en los mercados financieros con aplicaciones a contagio"
Principal Investigators: Dante Amengual (CEMFI) and Enrique Sentana (CEMFI), Funding: 37.510€

Ministerio de Economía y Competitividad (2015–2017): "Nuevas fronteras en economía financiera"
Principal Investigators: Enrique Sentana (CEMFI) and Javier Suárez (CEMFI), Funding: 54.450€

Ministerio de Ciencia e Innovación (2012–2014): Subprograma Juan de la Cierva
Principal Investigator: Dante Amengual (CEMFI), Funding: 90.000€

Ministerio de Economía y Competitividad (2012–2014): "Nuevos métodos Econométricos con aplicaciones empíricas en economía de género, envejecimiento, finanzas y organización industrial"
Principal Investigator: Manuel Arellano (CEMFI), Funding: 133.100€

Teaching Experience

CEMFI

Financial Economics (graduate course)
Asset Pricing I (graduate course)
Asset Pricing II (graduate course)
Introductory Mathematics (graduate course)
Mathematics (graduate course)
Risk Management (graduate course)
Times Series Econometrics (graduate course)
Introduction to Bayesian Methods in Econometrics (short PhD course)

Princeton University

Econometric Theory I (graduate course, TA)
Financial Investments (undergraduate course, TA)

Universidad de la República

Portfolio Theory and Risk Management (graduate course)
Bayesian Methods in Statistics (graduate course)
Signal Extraction (graduate course)
Multivariate Dynamic Models (graduate course)

Conferences and Seminars

2026 University of Lugano (March, Lugano), University of Zurich (March, Zurich),

2025 Universidad de Alicante (February–March, Alicante), Renmin University (March, Beijing), Macau University (March, Macau), Barcelona Workshop in Financial Econometrics (May, Barcelona), Italian Congress of Econometrics and Empirical Economics, (May, Palermo), 9^{th} International Workshop on "Financial Markets and Nonlinear Dynamics" (June , Paris), Financial Ecomometrics Conference (June, Hammelet), European meeting of the Econometric Society (Turin, June), 32^{st} Finance Forum (July, Pamplona), NOVA School of Economics (August, Lisbon), XIV Encuentro Anual de la Sociedad de Economistas del Uruguay (December, Montevideo)

2024 CUNEF (March, Madrid), Workshop in Time Series Econometrics (April, Zaragoza), TSE – Financial Econometrics Conference (May, Toulouse), Aarhus University (May, Aarhus), ESADE Spring Workshop (June, Barcelona), International Association for Applied Econometrics Conference (Salonica, June), 31^{st} Finance Forum (July, Tenerife), University of Liverpool (October, Liverpool), LACEA–LAMES Annual Meeting 2024 (November, Montevideo), 49^{st} Simposio de la Asociación Española de Economía (December, Palma de Mallorca), XIII Encuentro Anual de la Sociedad de Economistas del Uruguay (December, Montevideo)

2023 XIII Workshop in time series econometrics (March, Zaragoza), Conference in Honor of Jim Stock and Mark Watson (May, Cambridge, MA), TSE – Financial Econometrics Conference (May, Toulouse), Italian Congress of Econometrics and Empirical Economics, (May, Cagliari), BSE Summer Forum – Macroeconoemtrics and Policy Evaluation (June, Barcelona), XXX Finance Forum (July, Málaga), 34th $(EC)^2$ conference on Identification and Inference in Structural Econometric Models (December, Manchester), XII Encuentro Anual de la Sociedad de Economistas del Uruguay (December, Montevideo)

2022 IWEEE (Rimini, January), International Association for Applied Econometrics Conference (London, June), XXIX Finance Forum (July, Santiago de Compostela), XI Encuentro Anual de la Sociedad de Economistas del Uruguay (December, Montevideo)

2021 COVID, here we go again, X Encuentro Anual de la Sociedad de Economistas del Uruguay (December, Montevideo)

2020 COVID, here we go, IX Encuentro Anual de la Sociedad de Economistas del Uruguay (December, online)

2019 VIII Italian Congress of Econometrics and Empirical Economics (Lecce, January) IESE (March, Barcelona), University of Liverpool (April), Université de Montréal (April, Montréal), TSE–Financial Econometrics Conference (Toulouse, May), Asian meeting of the Econometric Society (Xiamen, June), China meeting of the Econometric Society (Guangzhou, June), International Association for Applied Econometrics Conference (Nicosia, June), 72^{nd} European meeting of the Econometric Society (August, Manchester), MADBAR (September, Barcelona), Meeting onf financial and macroeconometrics (August, Galatina), Universitá di Firenze (December), 46^{st} Simposio de la Asociación Española de Economía (December, Alicante), VIII Encuentro Anual de la Sociedad de Economistas del Uruguay (December, Montevideo)

2018 European University Institute (Janueary–March, Florence), Bilkent University (April), Toulouse School of Economics (April), Uppsala Universitet (April), TSE–Financial Econometrics Conference (May, Toulouse), Université de Montréal (May, Quebec), 2^{nd} Workshop on Macroeconomics and Financial Time Series Analysis (May–June, Lancaster), Current Challenges in Financial Economics (June, Madrid), 2018 EcoSta Conference (June, Hong Kong), 2018 Asian Meeting of the Econometric Society (June, Seoul), 2018 Econometric Society Australasia Meeting (July, Auckland), 71^{st} European Meeting of the Econometric Society (August, Cologne), Banco Central del Uruguay (December, Montevideo), VII Encuentro Anual de la Sociedad de Economistas del Uruguay (December, Montevideo)

2017 VII Italian Congress of Econometrics and Empirical Economics (January, Messina), TSE–Financial Econometrics Conference (May, Toulouse), New Methods for the Empirical Analysis of Financial Markets (June, Comillas), 13^{th} International Symposium on Econometric Theory & Applications (June, Beijing), 2017 EcoSta Conference (June, Hong Kong), Shanghai Jiao Tong University (June, Beijing), 4^{th} International Association for Applied Econometrics Conference (June, Sapporo), XXV Finance Forum (July, Barcelona), Universidad de la República (August, Montevideo), Universitat Pompeu Fabra (October, Barcelona), VI Encuentro de la Sociedad de Economistas del Uruguay (December, Montevideo)

2016 Indiana University (May, Bloomington), Boston University (May, Boston), BI–SHoF Conference in Asset Pricing and Financial Econometrics (June, Stockholm), 69^{th} European Meeting of the Econometric Society (August, Geneva), 2016 NBER-NSF Time Series Conference (September, New York), University of Liverpool (October, Liverpool), ESSEC Business School, 41^{st} Simposio de la Asociación Española de Economía (December, Bilbao), V Encuentro de la

Sociedad de Economistas del Uruguay (December, Montevideo)

2015 Erasmus Universiteit Rotterdam (April, Rotterdam), TSE–Financial Econometrics Conference (May , Toulouse), 23^{rd} Finance Forum (July, Madrid), René Garcia's 65th Anniversary Conference (August, Montréal), 11^{th} World Congress of the Econometric Society (August, Montréal), University College London, University of Surrey, 40^{th} Simposio de la Asociación Española de Economía (December, Girona), Universidad Torcuato Di Tella, IV Encuentro de la Sociedad de Economistas del Uruguay (December, Montevideo)

2014 TSE Financial Econometrics Conference (May, Toulouse), 7^{th} Annual Conference of the Society for Financial Econometrics (June, Toronto), Universidad de la República (July, Montevideo), 68^{th} European Meeting of the Econometric Society (August, Toulouse), 39^{th} Simposio de la Asociación Española de Economía (December, Palma de Mallorca), III Encuentro de la Sociedad de Economistas del Uruguay (December, Montevideo)

2013 21^{st} Finance Forum (November, Segovia), Latin American Workshop in Econometrics of the Econometric Society (December, São Paulo), II Encuentro de la Sociedad de Economistas del Uruguay (December, Montevideo)

2012 University of Chicago (February, Chicago), CREST (March, Paris), TSE–Nonlinear and Financial Econometrics Conference (May, Toulouse), Banco Central del Uruguay (July, Montevideo), 66^{th} European Meeting of the Econometric Society (August, Málaga), ECARES (March, Bruxelles), 20^{th} Finance Forum (November, Oviedo), I Encuentro de la Sociedad de Economistas del Uruguay (December, Montevideo)

2011 TSE–Financial Econometrics Conference: A Tribute to A. Ronald Gallant (May, Toulouse), Universidad de Alicante (May, Alicante), Banco de España–Bank of Canada Workshop on Advances in Fixed Income Modeling (July, Madrid), 65^{th} European Meeting of the Econometric Society (August, Oslo), Measuring Risk Conference (October, Princeton), 19^{th} Finance Forum (November, Granada), 36^{th} Simposio de la Asociación Española de Economía (December, Málaga)

2010 Universidad de León (March, León), TSE–Financial Econometrics Conference (May, Toulouse), 18^{th} Finance Forum (November, Elche), 35^{th} Simposio de la Asociación Española de Economía (December, Madrid)

2009 Booth School of buiness (January, Chicago), New York FED (January), FED Board (January, Washington DC), CEMFI (February, Madrid), Universidad Carlos III (February, Madrid), CIREQ–CIRANO Financial Econometrics Conference (April, Montréal), 64^{th} European Meeting of the Econometric Society (August, Barcelona), 17th Finance Forum (November, Madrid)