ROBERTO PASCUAL

Contact information

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Professional Experience

- Full Professor, University of the Balearic Islands (UIB), Spain, April 2019 present.
- Associate Professor of Finance, University of the Balearic Islands (UIB), Spain, December 2006 April 2019.
- Visiting Fellow, Auckland Centre for Financial Research, Auckland University of Technology (AUT), Auckland, New Zealand, August 2017 - January 2018.
- Visiting Fellow, International Center for Finance (ICF), Yale School of Management, Yale University, New Haven, Connecticut, USA, February 2012 – January 2013.
- Visiting Professor, European Center for Advanced Research in Economics and Statistics (ECARES),
 Université Libre de Bruxelles (ULB), Brussels, Belgium, October December 2008.
- Visiting Scholar, NYU Salomon Center, New York University (NYU), New York, USA, March 2003-February 2004.
- Associate Professor of Finance (without tenure), UIB, Spain, October 2000-November 2006.
- Assistant Professor, UIB, Spain, October 1999 September 2000.
- Assistant Professor, University Carlos III of Madrid (UC3M), Madrid, Spain, September 1995 -September 1999.

Education

- Ph.D. in Economics, UC3M, Madrid, Spain, March 2001 (with Extraordinary Award).
 Advisors: A. Escribano (UC3M) and M. Tapia (UC3M).
- B.A. in Business Administration, University Jaume I (UJI), Castellón, Spain, September 1995. (with Extraordinary Award)

Research Interests

- Financial Market Microstructure, High Frequency Trading, Liquidity, Financial Econometrics.
- Research topics: Liquidity supply in electronic order-driven markets, order choice, hidden volume in lit markets, informativeness of the trading process, circuit breakers, price discovery at high frequencies, trading frictions, informativeness of the limit order book, price discovery of cross-listed assets, trade classification algorithms, high frequency trading, transparency, dark trading among others.

Peer-reviewed publications

- Abad, D., M. Massot, and R. Pascual, 2018. "Evaluating VPIN as a trigger for single-stock circuit breakers." *Journal of Banking and Finance*, 86, 21-36 (JCR, Impact factor: 1.931).
- Chakrabarty, B., Pamela C. Moulton, and R. Pascual, 2017. "Trading System Upgrades and Short-Sale Bans: Uncoupling the Effects of Technology and Regulation." *Journal of Empirical Finance*, 43, 74-90. (JCR, Impact factor: 0.907)
- Chakrabarty, B., R. Pascual, and A. Shkilko, 2015. "Evaluating trade classification algorithms: bulk volume classification versus the tick rule and the Lee-Ready algorithm." *Journal of Financial Markets*, 25, 52-79 (JCR, Impact factor: 1.726)
- Abad, D., and R. Pascual, 2015, "The friction-free weighted price contribution." *International Review of Economics and Finance*, 37, 226-239. (JCR, Impact factor: 1.846)

- Pascual, R., and B. Pascual-Fuster, 2014, "The relative contribution of ask and bid quotes to price discovery." *Journal of Financial Markets*, 20, 129-150. (JCR, Impact factor: 2.111)
- Medina, V., A. Pardo and R. Pascual, 2014, "The timeline of trading frictions in the European CO2 market." Energy Economics 42, 378-394. (JCR, Impact factor: 2.708)
- Medina, V., A. Pardo and R. Pascual, 2013, "Carbon credits: Who is the leader of the pack?," International Journal of Energy Economics and Policy 3, 3, 210-220.
- Pardo, A., and R. Pascual, 2012, "On the Hidden Side of Liquidity," *European Journal of Finance*, 18, 10, 949-967. (JCR, Impact factor: 0.262)
- Abad, D., and R. Pascual, 2010, "Switching to a temporary call auction in times of high uncertainty," *Journal of Financial Research* 33, 1, 45-75.
- Pascual, R. and D. Veredas, 2010, "Does the Open Limit Order Book Matter in Explaining Informational Volatility?," *Journal of Financial Econometrics* 8, 57-87. (JCR, Impact factor: 0.846)
- Pascual, R. and D. Veredas, 2009, "What pieces of limit order book information matter in explaining the behavior of aggressive and patient traders?," *Quantitative Finance* 9, 527-545. (JCR, Impact factor: 0.754)
- Pardo, A. and R. Pascual, 2008, "The Use of Hidden Limit Orders in the Spanish Stock Exchange,"
 Cuadernos de Economía y Dirección de Empresas 34, 31-52 (in Spanish).
- Abad, D., and R. Pascual, 2007, On the Magnet Effect of Price Limits, *European Financial Management Journal* 13, 5, 833-852. (JCR, Impact factor: 0.717)
- Escribano, A., and R. Pascual, 2006, Asymmetries in Bid and Ask Responses to Innovations in the Trading Process, *Empirical Economics* 30, 913-946. (JCR, Impact factor: 0.280)
- Pascual, R., Pascual-Fuster, and B., F. Climent, 2006, "Cross-listing, Price Discovery, and the Informativeness of the Trading Process," *Journal of Financial Markets* 9, 144-161. (JCR, Impact factor: 1.091)
- Pascual, R., Escribano, A. and M. Tapia, 2004, "Adverse selection costs, trading activity and price discovery in the NYSE: An empirical analysis," *Journal of Banking and Finance* 28, 107-128. (JCR, Impact factor: 0.675)
- Pascual, R., Escribano, A. and M. Tapia, 2004, "On the bi-dimensionality of liquidity," *European Journal of Finance* 10, 6, 542-566.
- Pascual-Fuster, B., F. Climent, and Pascual, R., 2004, "The Role of the NYSE in the price discovery process of the most important Spanish ADRs," Revista Española de Financiación y Contabilidad 33, 47-64 (in Spanish).
- Pascual, R., and D. Veredas, 2004, "What components of the limit order book are informative?," Bolsa de Madrid 131, 72-74.
- Pascual, R. and M. Larraza, 2003, "The control role of the board of directors: What have we learned?," *Journal of Management Research* 1, 61-78.
- Pascual, R., 2003, "Liquidity: A survey on market microstructure research," *Financial Economics Review* 61-78 (in Spanish).

Book Chapters

- Pardo, A., and R. Pascual, 2015, On the hidden side of liquidity, in Nolte, I., M. Salmon, and C. Adcock (Eds.) *High-Frequency Trading and Limit Order Book Dynamics*, Routledge, New York.
- Abad, D., and R. Pascual, 2013, Holding back volatility: Circuit breakers, price limits and trading halts, in Baker, K., and H. Kiymaz (Eds.) The Kolb Series in Finance: Market Microstructure in Emerging and Developed Markets, John Wiley and Sons, Inc.
- Escribano, A., and R. Pascual, 2007, Asymmetries in the dynamics of ask and bid responses to innovations in the trading process, in Bauwens, L., W. Pohlmeier, and D. Veredas (Eds.) High-Frequency Financial Econometrics: Recent Developments, Physica-Verlag, Springer, New York.

Working papers

- Chakrabarty, B., T. Hendershott, S. Nawn, and R. Pascual, 2020, "Order Exposure in High-Frequency Markets" (https://ssrn.com/abstract=3074049)
 - O Conf.: Australian Banking and Finance Conference (Australia, 2017); Auckland Finance Meeting (NZ, 2017); National Stock Exchange NSE of India (India, 2017); Annual Conference on Money and Finance IGIDR (India, 2017); FMA-Europe (Norway, 2018) runner-up for best paper award; Northern Finance Association (Canada, 2018) Best paper on Market Microstructure Award; Annual Financial Market Liquidity Conference (Hungary, 2018); Annual Meeting of the Swiss Society for Financial Market Research SGC (Switzerland, 2019); European Financial Management Association (EFMA) Meeting (Portugal, 2019); Finance Forum (Spain, 2019) Best paper on Equity Markets award; FMA Annual Meeting (USA, 2020 –

- accepted) runner-up for best paper award; Plato Market Innovator (MI3) Conference on Market Structure in Europe and Beyond (Virtual Conference) <u>Best paper award</u>.
- Abad, Massot, M., Nawn, S., Pascual R., and J. Yagüe, 2020, "Order Flow Toxicity under the Microscope" (https://ssrn.com/abstract=347429)
 - Conf.: New Zealand Finance Meeting (NZ, 2018); Finance Forum (Spain, 2019); Financial Management Association (FMA)
 Europe (Cyprus, 2020 accepted and postponed); FMA Annual Meeting (USA, 2020 accepted) runner-up for best paper
 award.
- Dodd, O., B. Frijns, I. Indriawan, and R. Pascual, 2020, "US Cross-Listing and High-Frequency Trading Activity in the Home Market: Evidence from US-listed Canadian Stocks" - first draft available from the authors.
 - Conf.: PROMETEO Conference on Market Microstructure and Asset Pricing (Spain, 2018); New Zeland Finance Meeting (NZ, 2018); Financial Management Association (FMA) European Meeting (Scotland, 2019); Multinational Finance Society (Poland, 2020 accepted)
- Abad, D., B. Nieto, R. Pascual, and G. Rubio, 2020, "Market-Wide Illiquidity and the Volatility of a Model-Free Stochastic Discount Factor" (https://ssrn.com/abstract=3601732)
- Indriawan, I., Pascual, R., and A. Shkilko, 2020, "On the Effects of Continuous Trading" (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3707154)

Work in progress

- Chakrabarty, B., Commerton-Forde, C., and R. Pascual, 2020 "How Well do Proxies of HFT Really Measure HFT?" [Preliminary draft available soon]
- Chakrabarty, B., and R. Pascual, 2020, "Market Fragility and HFT: Lessons from COVID19" [Preliminary draft available soon]
- Chakrabarty, B., and R. Pascual, 2020, "HFT and dark pools project"
- Chakrabarty, B., S. Nawn, and R. Pascual, 2020, "HFT and ALP project"
- Chakrabarty, B., T. Boulton, and R. Pascual, 2020, "IPO stocks project"
- Chakrabarty, B., Moulton, P., and R. Pascual, 2020, "Non-Financial Fraud project"
- Abad, D., B. Nieto, R. Pascual, and G. Rubio, 2020 "Liquidity and the Volatility of the Real Economy"
- Abad, D., B. Nieto, R. Pascual, and G. Rubio, 2020 "The pricing of market frictions in value, momentum, and quality portfolios"

Ph.D. Dissertations and Master Thesis advised

- García, Alejandro, Kelly, Thomas, and Seguí, Juan Antoni, Master in Finance, Barcelona Graduate School of Economics (BGSE), University Pompeu Fabra, Barcelona, 2020: "Weighted price contribution and HFT" (Grade: 10/10).
- Balboa, Carles, Peng, Yuxuan, Puigferrat, M^a del Mar, and Raj, Rahul, Master in Finance, Barcelona Graduate School of Economics (BGSE), University Pompeu Fabra, Barcelona, 2018: "The informativeness of the limit order book: HFT and non-HFT standing orders" (Grade: 8/10)
- Hongwei, Zhang, Master in Management, Organization, and Business Economics (MMOBE), 2016:
 "Corporate governance practices and stock market conditions" (Grade: Excellent)
- Gaebler, Catalina, Master in Banking and Quantitative Finance, University of Valencia, 2015: "Latency and market quality: the case of the SIBE-Smart in the Spanish Stock Exchange" (Grade: 9/10).
- Medina, Vicente, Ph.D. Program on Quantitative Finance, University of Valencia, 2013: "Essays on EUAs" (Grade: Excellent EU recognition).

Supported Research Projects

Research Project ECO2017-86903-P "High-frequency markets: liquidity supply, hidden volume, and corporate governance practices", Ministerio de Educación e Innovación (Spanish Ministry of Education and Innovation). University of the Balearic Islands. Leading researchers: Roberto Pascual and Tomeu Pascual (University of the Balearic Islands). Period: 2018-2020. (In progress)

- Research Project PROMETEO/2017/158 "Expectations, asset prices and market frictions," Consellería de Educación, Investigación, Cultura y Deporte, Generalitat Valenciana. Leading researcher: Gonzalo Rubio (Universidad CEU Cardenal Herrera). Period: 2017-2021. (In progress)
- Research Project "Order exposure strategies in high-frequency markets," NSE-NYU Stern School of Business Initiative for the Study of Indian Financial Markets. National Securities Exchange of India (NSE) and the Center for Global Economy and Business at NYU Stern School of Business. Leading researchers: Bidisha Chakrabarty (Saint Louis University) and <u>Roberto Pascual</u> (University of the Balearic Islands). Period: 2017-2018. (*In progress*)
- Research Project "High-Frequency Trading in stock exchanges: Volatility, efficiency and short selling bans," Fundación BBVA, "I Convocatoria de Ayudas Fundación BBVA a Investigadores, Innovadores y Creadores Culturales 2014." Leading researcher: Roberto Pascual (University of the Balearic Islands). Period: 2015.
- Research Project ECO2013-4409-P "Opacity in bank firms: determinants, contribution to the economic and financial crisis and bank managers compensation," Ministerio de Educación e Innovación (Spanish Ministry of Education and Innovation). University of the Balearic Islands. Leading Researchers: Antoni Vaello and Alfredo Martin (University of the Balearic Islands). Period: 2015-2017.
- Research Project ECO2010-18567 "Market Microstructure in Order Driven Markets: Price Formation and Liquidity Provision," Ministerio de Educación e Innovación (Spanish Ministry of Education and Innovation). University of the Balearic Islands. Leading researcher: <u>Roberto Pascual</u> (University of the Balearic Islands). Period: 2010-2014.
- Research Project "Two studies about price discovery and liquidity provision in financial markets," Fundacion UCEIF (Fundacion de la Universidad de Cantabria para el Estudio y la Investigación del Sector Financiero) 2008 Edition. Leading researcher: Roberto Pascual (University of the Balearic Islands). Period: 2009-2010.
- Research Project SEJ2007-67895-C04-03 "Business Organization, Government Practices, and Family Control," Ministerio de Educación y Ciencia (Spanish Ministry of Education and Science). University of the Balearic Islands. Leading researcher: Rafel Crespí (University of the Balearic Islands). Period: 2008-2010.
- Research Project SEJ2004-07530-C04-04 "Corporate Governance: Incentives Structure and Market Efficiency," Ministerio de Educación y Ciencia (Spanish Ministry of Education and Science). University of the Balearic Islands. Leading researcher: Rafel Crespí (University of the Balearic Islands). Period: 2004-2007.
- European project "MICFINMA: Microstructure of Financial Markets in Europe," European Commission, Research Directorate-General, Cod. HPRN-CT-2002-00232, Program: VPM-Improving Human Research Potential. Leading researcher: Álvaro Escribano (University Carlos III, Madrid). Period: 2002-2006.
- Research Project Ref. DL0544CS3310 "Exploiting the Information Content in a Limit Order Book," National Bank of Belgium. Period: 2004-2006. Leading researcher: David Veredas (Université Libre de Bruxelles)
- Research Project "On the Hidden Side of Liquidity," IVIE, Leading researcher: Ángel Pardo (University de Valencia). Period: 2004.
- Research Project BEC2001-2552-C03-03 "Organizational Structure and Corporate Governance in Spain," Ministerio de Educación y Ciencia (Spanish Ministry of Education and Science). University of the Balearic Islands. Leading researcher: Rafel Crespí (University of the Balearic Islands). Since 2003. Period: 2001-2004.
- Research Project "Trading simultaneously in several markets: The case of the NYSE-listed Spanish ADRs," IVIE, Leading researcher: Francisco Climent (University of Valencia). Period: 2002.
- Research Project PB98-0030 "Liquidity, Microstructure and Risk Management," Ministerio de Educación y Ciencia (Spanish Ministry of Education and Science). University Carlos III, Madrid. Leading researcher: Juan Ignacio Peña Sánchez de Rivera (University Carlos III). Period: 2000-2002.
- National Research Project "Technological change and control of costs," D.G.E.S. Leading researcher: Salvador Carmona (University Carlos III). Period: 1996-1998.

Research Honors

- Plato Market Innovator (MI3) Conference on Market Structure in Europe and Beyond (Virtual Conference, 2020), best paper award for "Order Exposure in High Frequency Markets" (with B. Chakrabarty, T. Hendershott, and S. Nawn).
- BME (Spanish Stock Exchange) prize, best paper about stock markets presented at the XXVII Finance Forum, Madrid (Spain), 2019, for "Order Exposure in High Frequency Markets" (with B. Chakrabarty, T. Hendershott, and S. Nawn).
- Northern Finance Association, Best Paper on Market Microstructure Award, NFA Meeting 2018, Charlevoix, Quebec, Canada, for "Order Exposure in High Frequency Markets" (with B. Chakrabarty, T. Hendershott, and S. Nawn)
- BME (Spanish Stock Exchange) prize, best paper about stock markets presented at the XIX Finance Forum, Oviedo (Spain), 2012, for "Is the weighted price contribution robust to trading frictions?," (with D. Abad).
- BME (Spanish Stock Exchange) prize, best paper about stock markets presented at the XVII Finance Forum, Madrid (Spain), 2009, for "The relative contribution of ask and bid quotes to price discovery," (with B. Pascual-Fuster).
- Fundación de Estudios Financieros (FEF) 2007 Prize, best research paper about financial markets, for "Switching to a temporary call auction in times of high uncertainty," (with D. Abad).
- BME (Spanish Stock Exchange) prize, best paper about stock markets presented at the XV Finance Forum, Palma de Mallorca (Spain), 2007, for "Quote quality in an order driven market: How much volatility is information and how much is noise?," (with D. Veredas).
- CNMV (Spanish Securities Exchange Commission) prize, best paper with implications for market regulators presented at the XIV Finance Meetings, Castellon (Spain), 2006, for "Switching to a temporary call auction in times of high uncertainty," (with D. Abad).
- AEFIN (Spanish Association of Finance) prize, best paper presented at the XIV Finance Forum, Castellon (Spain), 2006, for "Switching to a temporary call auction in times of high uncertainty," (with D. Abad).
- Best paper in the field of Finance in the VII Spanish-Italian Meeting on Financial Mathematics, Cuenca (Spain), 8-9 of July 2004, for "On the hidden side of liquidity" (with A. Pardo).
- Josseph de la Vega Prize, Federation of European Securities Exchanges (FESE), best research paper, Frankfurt (Germany), June 2004, for "On the hidden side of liquidity" (with A. Pardo).
- AEFIN (Spanish Association of Finance) prize, best paper presented at the IX Finance Forum, Pamplona (Spain), 2001, for "Adverse selection costs, trading activity and price discovery in the NYSE: an empirical analysis" (with A. Escribano and M. Tapia).
- Extraordinary Award, best Ph.D. dissertation, University Carlos III, academic year 2000-2001, in the field of Business and Finance.

Research Visiting

- Auckland Centre for Financial Research, Auckland University of Technology, Auckland, New Zealand (August 2017 – February 2018).
- International Center for Finance, Yale School of Management, Yale University, New Haven, Connecticut, USA (February 2012 January 2013).
- Université Libre de Bruxelles, ECARES, Brussels, Belgium (October 2008 December 2008).
- NYU Salomon Center, Department of Finance, Stern School of Business, New York University, New York, USA (March 2003 – February 2004).

Sexenniums

Positive evaluation by the Spanish National Agency for Quality Assessment an Acreditation (ANECA) of the research activity for the periods 2000-2006, 2007-2012, and 2013-2018.

Research Presentations

International Conferences

- Financial Management Association (FMA) Annual Meeting, New York City, USA, October 14-17, 2020 (accepted, two papers)
- Financial Management Association (FMA) Europe, Limassol, Cyprus, June 10-12, 2020 (accepted, postponed).
- European Financial Management Association (EFMA) Annual Meetings, Azores, Portugal, June 26-29, 2019.
- Financial Management Association (FMA) Europe, Glasgow, Scotland, June 12-14, 2019.
- New Zealand Finance Meeting, Queenstown, New Zealand, December 17-19, 2018.
- Annual Financial Market Liquidity Conference, Budapest, Hungary, November 14-15, 2018.
- Northern Finance Association (NFA), Charlevoix, Quebec, Canada, September 21-23, 2018.
- Financial Management Association (FMA) Europe, Kristiansand, Norway, June 13-15, 2018.
- Auckland Finance Meeting, Queenstown, New Zealand, December 18-20, 2017.
- Australian Finance and Banking Conference, Sydney, Australia, December 12-14, 2017.
- Annual Financial Market Liquidity Conference, Budapest, Hungary, November 16-17, 2016.
- European Financial Management Association (EFMA) Annual Meetings, Basil, Sweden, June 29-2, 2016.
- INFINITY Conference on International Finance, Dublin, Ireland, June 13-14, 2016.
- Financial Management Association (FMA) Europe, Helsinki, Finland, June 9-10, 2016.
- Auckland Finance Meeting, Auckland, New Zealand, December 18-19, 2015.
- XIV European Economics and Finance Society (EEFS) Conference, Brussels, Belgium, June 11-14, 2015.
- World Finance Conference, Venice, Italy, July 2-4, 2014.
- Multinational Finance Society, Prague, Check Republic, June 26-28, 2014.
- FMA European Conference, Luxemburg, Luxemburg, June 12-14, 2013.
- 16th SGF (Swiss Society for Financial Market Research) Conference, Zurich, Switzerland, April 12, 2013.
- World Finance Conference, Rio de Janeiro, Brazil, July 1-6, 2012.
- Eastern Finance Association Meeting, Boston, USA, April 11-14, 2012.
- European Financial Management Association (EFMA) Annual Meetings, Braga, Portugal, June 22-26, 2011.
- INFINITY Conference on International Finance, Dublin, June 13-14, 2011.
- FMA European Conference, Hamburg, Germany, June 9-11, 2010.
- 17th SFM Conference, Kaohsiung, Taiwan, December 11-12, 2009.
- ABER 8th Global Conference on Business and Economics, Florence, Italy, October 18-19, 2008.
- European Financial Management Association (EFMA) Annual Meeting, Athens, Greece, August 25-28, 2008.
- European Financial Association Meeting, Zurich, Switzerland, August 23-26, 2006.
- European Financial Management Association (EFMA) Annual Meetings, Madrid, Spain, June 23-26, 2006.
- Workshop on The Econometrics of Microstructure of Financial Markets, Konstanz, Germany, May 19-20, 2006.
- Workshop on The Econometrics of Microstructure of Financial Markets, Tilburg, The Netherlands, April 23-24, 2004.
- European Financial Management Association (EFMA) Annual Meetings, London, England, June 24-26, 2002.
- European Financial Association Meeting, Barcelona, Spain, August 23-26, 2001.
- CAF Market Microstructure and High-Frequency Data in Finance Workshop, Sønderborg, Denmark, August 5-9. 2001.
- 27th Meeting of the Euro Working Group on Financial Modelling, New York, USA, November 16-18, 2000
- 10th (EC)² Meetings on Financial Econometrics, Poster Session, Madrid, Spain, December 9-11, 1999.
- European Financial Management Association (EFMA) Annual Meetings, Paris, France, June 24-26, 1999.

Spanish Conferences

- XXVII Finance Forum, Madrid, July 11-12, 2019.
- XXIV Finance Forum, Madrid, July 7-8, 2016.
- XXIII Finance Forum, Madrid, July 9-10, 2015.
- XXI Finance Forum, Segovia, November 14-15, 2013.
- XIX Finance Forum, Granada, November 19-20, 2011.
- XVII Finance Forum, Madrid, November 4-5, 2009.
- XV Finance Forum, Palma de Mallorca, November 15-16, 2007.
- XIV Finance Forum, Castellón, November 16-17, 2006.
- XII Finance Forum, Barcelona, December 9-10, 2004.
- XII Congreso Nacional ACEDE, Palma de Mallorca, September 22-24, 2002.
- IX Finance Forum, Pamplona, November 15-17, 2001.
- VIII Finance Forum, Madrid, October 25-27, 2000.
- IV Workshop de Finanzas, Segovia, July 4-6, 2000.
- VII Finance Forum, Valencia, November 25-26, 1999.

Research Seminars

- University of the Balearic Islands, "Order Flow Toxicity under the Microscope", June 19, 2020.
- Autonomous University of Madrid, "Order Flow Toxicity under the Microscope", January 23, 2020.
- CUNEF, "Order Flow Toxicity Under the Microscrope", October 30, 2019.
- Stockholm Business School, "Order Exposure in High-Frequenty Markets", May 6, 2019.
- Wilfrid Laurier University, "Order Exposure in High-Frequency Markets," September 18, 2018.
- University CEU Cardenal Herrera, "Order Exposure in High-Frequency Markets," April 20, 2018.
- Auckland University of Technology, "Order Exposure in High-Frequency Markets," September 20, 2017.
- ESADE Business School, "Trading Upgrades and Short Sale Bans: Uncoupling the Effects of Technology and Regulation," November 23, 2016.
- University Rovira i Virgili, "Evaluating VPIN as a trigger for single-stock circuit breakers," May 7, 2015.
- University Carlos III of Madrid, "Evaluating VPIN as a trigger for single-stock circuit breakers," April 23, 2015.
- University CEU Cardenal Herrera, "The relative contribution of ask and bid quotes to price discovery,"
 June 29, 2009.
- University of Valencia, "The relative contribution of ask and bid quotes to price discovery," June 26, 2009.
- University Carlos III of Madrid, "The relative contribution of ask and bid quotes to price discovery,"
 June 22, 2009.
- Univerity CEU Cardenal Herrera, "Does the open limit order book matters in explaining informational volatility?," February 2008, Elche, Spain.
- University of Valencia, "Switching to a temporary call auction in times of high uncertainty," September 2006, Valencia, Spain.
- University of Alicante, "Does the LOB matters in explaining long-run volatility?," March 2006, Alicante, Spain.
- Université Libre de Bruxelles, ECARES, "On the Hidden Side of Liquidity," November 30, 2004, Brussels, Belgium.
- Bolsa de Madrid, "What pieces of limit order book information are informative?," April 6, 2004, Madrid, Spain.
- University of Alicante, Economics Seminars, "All we wanted to know about liquidity and were not afraid to ask: A survey of market microstructure research," February 1, 2002, Alicante, Spain.
- University of La Laguna, "One stock and many markets: Price formation, cross-listing and trading activity. The case of the Spanish NYSE-listed stocks," December, 2002, Tenerife, Spain.
- Université Catholique de Louvain, Center for Operations Research and Econometrics (CORE), Econometrics Seminars, "Asymmetries in bid-ask responses to the innovations in the trading process," November 29, 2000, Louvain la Neuve, Belgium.

Invited Speaker

Doctoral Symposium, New Zealand Finance Meeting, Queenstown, NZ, December 17, 2018.

Research fellowships

- Spanish Ministry of Education "Madariaga" Grant (2017). Program: "Mobility of senior Spanish professors and researchers." Research stay at the Auckland Centre for Financial Research, Auckland University of Technology, Auckland, New Zealand. Period: August 2017 to January 2018.
- BBVA Foundation (2015). "I Convocatoria de Ayudas Fundación BBVA a Investigadores, Innovadores y Creadores Culturales 2014."
- Spanish Ministry of Education "Madariaga" Grant (2012). Program: "Mobility of senior Spanish professors and researchers." Research stay at the International Center for Finance, Yale School of Management, Yale University, Connecticut, USA.
- Fulbright Grant (2003). Visiting Scholar, Department of Finance, Stern School of Business, New York University.
- Caja Madrid Foundation (1997). Financial Economics Research Project Fellowship, for the Ph.D. project "Essays about Liquidity," University Carlos III, Madrid, Spain.
- Cooperation Fellowship (1994). Spanish Ministry of Education and Science. Department of Business, University Jaume I of Castellón.

Teaching and Professional Activities

Teaching in international Ph.D./Master programs

- Summer course: "Rise of the Machines: electronic markets and high-frequency trading," Barcelona Graduate School of Economics (BGSE), Universitat Pompeu Fabra, 17.5 hours, 2019-present.
- Master course: "Market liquidity and high-frequency trading," Master in Finance, Barcelona Graduate School of Economics (BGSE), Universitat Pompeu Fabra, 20 hours, 2016-present. (Course grade 2018: 4.5/5; 2019: 4.6/5; 2020: 4/5)
- Master course: "Financial Econometrics with high-frequency data," Master in Big Data Analysis in Economics and Business (MADM), University of the Balearic Islands, 20 hours, 2016-present.
- Master course: "Asset pricing and trading frictions," Master in Finance, BGSE, Universitat Pompeu Fabra, 18 hours, 2015 (Course grade 2015: 9/10)
- Master course: "Market Microstructure," Master in Finance, BGSE, Universitat Pompeu Fabra, 14 hours, 2010 and 2011.
- Master course: "Finance and Markets," Master in Management, Organization, and Business (MMOBE) (MMOBE-DEMO), Universitat Autònoma de Barcelona, 8 hours, from February 2010 to 2016.
- PhD course: Empirical Market Microstructure, Tilburg University, The Netherlands, 10 hours, May 2004.

Current teaching in undergraduate programs

- Degree in Economics (UIB): Financial Economics
- Degree in Business Administration (UIB): Stock Exchanges (present)

Other professional activities

Referee experience:

Management Science, Journal of Banking and Finance, Journal of Applied Econometrics, Journal of Financial Markets, Journal of Empirical Finance, Review of Finance, The Financial Review, International Review of Economics and Finance, European Financial Management Journal, Quantitative Finance, Spanish Economic Review, Empirical Economics, North American Journal of Economics and Finance, European Accounting Review, Asia Pacific Management Review, Global Business and Economics Review, Applied Mathematical Finance, Economic Modelling, Moneda y Crédito, Revista de Economía Aplicada, Investigaciones Económicas, Revista Española de Financiación y Contabilidad.

Organization of research meetings:

XII ACEDE National Conference, Palma, September, 2002 (member of the Organizational Committee); XV Finance Meeting of AEFIN, Palma, November, 2007 (President of the Organizational Committee); XXV Finance Meeting, Barcelona, 2017 (Member of the Program Committee, track chair "Market Microstructure: Empirical"); PROMETEO Workshop on Market Microstructure and Asset Pricing, Palma, September 2018 (Organizer).

Scientific Committees:

XII Finance Forum, University Pompeu Fabra, Barcelona, 2004; XIV Finance Forum, University Jaume I, Castellón, 2006; 17th Annual Meeting of the *European Financial Management Association* (EFMA), Athens, Greece, 2008; XVIII Finance Forum, Universidad Cardenal Herrera-CEU, Elche, Alicante, 2010; XXII Finance Forum, Universidad de Zaragoza, 2014; XXIII Finance Forum, ICADE, Madrid, 2015; XXIV Finance Forum, CUNEF, Madrid, 2016.

Research Boards / Juries:

De la Vega Prize Advisory Jury, Federation of European Securities Exchanges (FESE), 2005 – 2017; Technical Commission of the Subdirectorate of Research Projects of the Spanish Ministry of Education and Science (MEC) for the evaluation of R&D projects in Economics (2008, 2012, and 2013); referee of the National Agency of Evaluation and Prospective of R&D projects, Ministry of Science and Technology (2006, 2007, 2009, 2010, and 2011).

Board of Examiners of PhD Dissertations:

Doctoral thesis "Three Essays on Financial Markets" by Julio Crego, CEMFI, June 2017; doctoral thesis "Essays in Market Microstructure" by Peter Hoffmann, University Pompeu Fabra, July 2011.

• Journals:

Associate Editor, Revista de Economía Financiera, 2003-2007.

• Advisory/consulting experience:

Oxera (2019) "The Desing of Equity Trading Markets in Europe: an Economic Analysis of Price Formation and Market Data Services", prepared for Federation of European Securities Exchanges (FESE) (www.oxera.com)

• University services:

Secretary of the Faculty of Economics and Business, University of the Balearic Islands, 2013-2020; Member of the Development and Design Commission of the Degree of Economics of the UIB, 2010.