



ANNUAL RESEARCH ACTIVITY REPORT 2017

June 2018

Index

1. Introduction
2. Research Groups
3. Publications
4. Conferences, seminars and workshops
5. PhD programs
6. Ongoing research projects
7. Staff

@ rem@iseg.ulisboa.pt

 <https://rem.rc.iseg.ulisboa.pt/>

 <https://twitter.com/ResearchRem>



1. Introduction

REM - Research in Economics and Mathematics is a research consortium hosted by ISEG, the School of Economics and Management of Universidade de Lisboa, which is the largest and most reputed Portuguese University. The consortium was formed in 2017 by bringing together two research centres:



Mathematics Applied to Forecasting and Economic Decision



Research Unit on Complexity and Economics

REM produces original research in Economics and Mathematics, both theoretical and applied, taking a multidisciplinary stance at complex problems in economies and societies. The consortium encompasses several areas of research covering economics, mathematics and finance, behavioural and political economy. The research produced is a useful instrument for the formulation and the critical analysis of public policy, also in connection with industry stakeholders. Moreover, REM bears strong cooperation ties with governmental institutions, Central Banks (notably Banco de Portugal), and international organisations (IMF, OECD, and ECB), and regulators to drive an updated agenda of research into economic and societal challenges.

REM's researchers are organized in six groups: Econometrics; Mathematical Analysis and Computational Finance; Macroeconomics; Mathematics of Complex Systems; Microeconomics; and Statistics and Actuarial Science. At the end of 2017 there were 70 integrated members and around 50 collaborators encompassing research associates and PhD students.

REM hosts and coordinates three doctoral programmes at ISEG, being committed to research-based advanced teaching. Ph.D. students are integrated members of research teams, often in international consortia, and M.Sc. students prepare their dissertations in close articulation with ongoing research lines.

Regarding impact, REM ranks high in publication records according to international standards. There is an active policy for promoting publication in excellent scientific journals and books published by international publishers. Nonetheless, we are also strongly committed to make our research outputs freely available via working papers and open-access publications. Indeed, REM members have published more than 360 articles in international peer-reviewed journals in the period 2012-17, with more than 20% of them placed in the first quartile of Web of Science (or Scopus). These publications are also highly ranked in the ABS and FT journal rankings. In addition, REM has its own Working Paper series indexed in IDEAS/RePEc.

2. Research Groups

2.1. Econometrics

The **Econometrics group** consists of 14 researchers who are also full-time lecturers at public universities (13 lecturers and professors at ISEG and one lecturer at Beira Interior University). The group is heterogeneous and conducts research in distinct areas of Econometrics. While some members exclusively conduct empirical research, others focus on theory. The majority, however, combine these two strands of research.

We highlight three principal areas of research: i) microeconometrics, more specifically, panel data, discrete choice models, fractional regression models, sample selection, quantile regression (mostly on cross-section analysis), conditional moments constraints, missing data, attrition, discrete-continuous choice models, endogeneity in nonlinear models and spatial econometrics; ii) time series, in particular, clustering and classification, multivariate Markov chain, regression-based tail index estimation, double unit roots and value-at-risk and expected shortfall; iii) applied economics on poverty, social exclusion, income distribution and social policy.

On top of these main areas, our group occasionally conduct research in areas close to statistics such as nonparametric estimation (e.g., density forecast based on time- and state-domain, expected time to cross a threshold, and structural change test in duration).

2.2. Economics and Mathematics of Complex Systems

The **Economics and Mathematics of Complex Systems group** is a multidisciplinary group that consists of 7 mathematicians and 6 economists who contribute to tackling human problems using their modelling expertise. Many of these contributions rely on the feedback of social phenomena, which, in addition to material constraints, are also a result of human decision processes.

We believe that modelling can only be relevant to the society if it addresses real and actual problems. Therefore, the joint expertise from mathematics and social sciences is needed. The members of this group have different backgrounds and diverse scientific training and work together in a true interdisciplinary spirit.

The group comprises four main research lines: i) non-linear dynamical systems (theory and applications), including computational economics and finance; ii) innovation studies, which includes modelling and reconstruction of innovation processes; iii) bibliometric and scientometric research, and iv) network structure and dynamics.

2.3. Macroeconomics

The **Macroeconomics Group** has 14 members, some of them also with links with Banco de Portugal. Several topics of research include fiscal policy, monetary policy alongside macro econometric modelling and DSGE modelling.

Other lines of research deal with macroeconomic dynamics, macro prudential policies and household indebtedness, government efficiency analysis, and international economic and financial integration, euro area long-term sovereign bond yields, macroeconomics of imperfect

competition, firm dynamics and macroeconomic dynamics or on the mathematics of macroeconomic dynamics, measuring the output gap, and the relevance of public investment for economic activity.

Members of the group organise a regular workshop on macro issues that takes place around the economics' schools in Lisbon.

2.4. Mathematical Analysis and Computation Finance

The **Mathematical Analysis and Computation Finance group** consists of 8 researchers whose expertise relies on a strong quantitative background that allows tackling open questions in a set of diversified pure and applied domains that nowadays require an exigent mathematical framework.

In mathematical finance: nonlinear Black-Scholes equation and option pricing with transaction costs; stochastic analysis, control theory and optimal stopping problems, and applications to portfolio theory, option pricing, and real options; risk measures in complex markets; numerical and mathematical analysis of partial integro-differential equations and delay differential equations in option pricing with memory effects; parallel solution methods for linear systems that enable to overcome the curse of dimensionality in financial applications.

In mathematical analysis with applications to Economics, Finance, Medicine and Physics: combinatorial game theory concerning impartial games and the generation of all complete lattices with a well-chosen initial set of combinatorial games; approximation of parabolic PDEs arising in finance; evolution equations associated with strongly continuous Markov processes and controlled versions of such equations, with optimal control problems in view; numerical and mathematical analysis of partial differential equations of elliptic/parabolic type; parallel solution methods for linear systems arising in the solution of partial differential and integro-differential equations with biomedical applications; dispersive differential equations with quantum mechanics and dynamics of wave propagation in dispersive media in view.

2.5. Microeconomics

The **Microeconomics group** consists of 13 researchers, 9 of whom are also full-time lecturers at public universities. We conduct both theoretical and applied research using lab and field experimental methods and non-experimental survey data. Three research areas been particularly productive.

In Urban Economics, with focus on transport (efficiency and distributional effects of transportation policies on urban form and mode choices; linkages between transport investment, agglomeration economies, and economic performance) and on regional development (causes of spatial disparities in regional development and socio-economic outcomes). Previous work resulted in an extensive list of publications and in the near future we aim at examining the relationship between the expansion of the road network and the urban spatial structure in Portugal over the last 30 years.

In the field of Behavioural and Experimental Economics, previous work dealt with testing matching mechanisms in the lab, as well as investigating the role of information in coordination, cooperation, and competition games. Also, field and lab experiments investigate gender differences in economic decision-making and explore various institutional and policy

interventions that possibly reduce the gender gap inefficiencies in labour markets. For the near future, we aim at linking overconfidence to other aspects of decision making and real world outcomes, with a focus on information processing and group dynamics. These experiments will be conducted at ISEG's new PASSDA Behavioral Laboratory.

At last, is International Trade, whose main contributions focus on multi-country dynamic trade models to study entry and exit from export markets, on the relevance of geography for multinational production, on exporters' strategies, and on the effects of managers' mobility on trade performance. For the near future, we aim at quantifying the effects of trade and labour market integration in the context of economic integration.

2.6. Statistics and Actuarial Science

The **Statistics and Actuarial Science group** is composed of 8 researchers, 7 of whom are also full-time lecturers at ISEG, and 4 Ph.D. students.

In this group we explore a variety of themes, such as uncertainty quantification and model selection/hypotheses testing using a Bayesian approach. Current projects in this line involve the application of uncertainty quantification techniques to economic models and Bayesian hypotheses testing in the context of proportions. In another ongoing project, we focus on bivariate counting distributions with the objective of modelling dependence of risks in actuarial science and its implications on ratemaking. Yet another research topic focuses on the optimal reinsurance strategy from the cedant's point of view when the risks for which reinsurance is sought are dependent. In this topic, we consider several optimization criteria, from single to multi-period models, and use approaches related to the theory of stochastic control. Finally, there are several ongoing projects in the area of ruin theory.

3. Publications

In 2017, considering also some forthcoming articles, REM published 54 articles in peer reviewed journals.

Afonso, A., St. Aubryn, M. (2018), Economic Growth, Public, and Private Investment Returns in 17 OECD Economies, Portuguese Economic Journal, forthcoming.
Afonso, A., Kazemi, M. Euro Area Sovereign Yields and the Power of Unconventional Monetary Policy Finance a úvěr-Czech Journal of Economics and Finance, forthcoming.
Afonso, A., Silva, J. Debt crisis and 10-year sovereign yields in Ireland and in Portugal Applied Economics Letters 25(4), 217-222 2018
A. Bastos and C. Machado (2018). Children and the dynamics of poverty and social exclusion. Empirical evidence from Portugal, International Journal of Social Economics, forthcoming.
Melo, P.C., Ge, J., Craig, T., Brewer, M. J., Thronicker, I. Does Work-life Balance Affect Pro-environmental Behaviour? Evidence for the UK Using Longitudinal Microdata Ecological Economics 145, 170-181 2018
Pontes, J. A Response to Towards a Group Analytic Praxis for Working with Teams in Organizations by Christine Thornton Group Analysis 50(4), 542-545 2017
G. Del Magno, J. Lopes Dias, P. Duarte and J. P. Gaivão Hyperbolic polygonal billiards with finitely many ergodic SRB measures Ergodic Theory and Dynamical Systems to appear 2017

Proença, I. Martinez- Gálan, E. and Fontoura, M.P. Measuring the impact of a bonus-malus system in finite and continuous time ruin probabilities for large portfolios in motor insurance ASTIN Bulletin 47 (2), 417-435 2017
Afonso, A., Alves, J. Reconsidering Wagner's Law: Evidence from the Functions of the Government Applied Economics Letters 24(5), 346-350 2017
Afonso, L.; Cardoso, R.; Egídio dos Reis, A.; Guerreiro, G. Measuring the impact of a bonus-malus system in finite and continuous time ruin probabilities for large portfolios in motor insurance ASTIN Bulletin 47, 417-435 2017
Andrade e Silva, J.; Centeno, M. L. Ratemaking of Dependent Risks ASTIN Bulletin 47, 875-894 2017
Bessa, M.; Lopes Dias, J.; Torres, M. J. On shadowing and hyperbolicity for geodesic flows on surfaces Nonlinear Analysis: Theory, Methods & Applications 155, 250-263 2017
Oliveira, F. On a quasilinear non-local Benney system Journal of Hyperbolic Differential Equations 1–24 2017
Santos, A.; Guerra, J.; Neves, T. Performance and predictive power of risk-neutral densities and subjective probability density functions International Review of Finance 1–26 2017
Proença, I.; Martinez- Gálan, E.; Fontoura, M. P. Trade Potential Revisited: A Panel Data Analysis For Zimbabwe Applied Econometrics and International Development 1–22 2017
Ramalho, E.A., J.J.S. Ramalho, R. Envangelista Combining micro and macro data in hedonic price indexes Statistical Methods and Applications 26, 317–332 2017
Silva, V.G., E.A. Ramalho, C.R. Vieira The use of cheques in the European Union: a cross-country analysis Open Economies Review 28, 581–602 2017
Ramalho, E.A., J.J.S. Ramalho Moment-based estimation of nonlinear regression models with boundary outcomes and endogeneity, with applications to non-negative and fractional responses Econometric Reviews 36, 397-420 2017
Parente, P.M.D.C. A General Class of Non-nested Test Statistics for Models Defined through Moment Restrictions Econometric Theory 1–31 2017
Parente, P.M.D.C. and R.J. Smith Tests of Additional Conditional Moment Restrictions Journal of Econometrics 200, 1-16 2017
Afonso, A., Baxa, J., Slavik, M. Fiscal developments and financial stress: a threshold VAR analysis Empirical Economics Janeiro 2017, 1-29 2017
Afonso, A., Jalles, J. Euro area time varying fiscal sustainability International Journal of Finance and Economics 22(3), 244-254 2017
Afonso, A., Jalles, J. Fiscal Episodes and Market Power Open Economies Review 28(2), 233-250 2017
Afonso, A., Jalles, J. Sovereign Debt Composition and time-varying public finance sustainability North American Journal of Economics and Finance 42, 144-155 2017
Afonso, A., Jalles, J. The Price Relevance of Fiscal Developments International Economic Journal 31 (1), 36-50 2017
Afonso, A., Silva, J. Current account balance cyclicity Applied Economics Letters 24(13), 911-917 2017
Afonso, A., Silva, J. Determinants of non-resident government debt ownership Applied Economics Letters 24 (2), 107-112 2017
Araújo, T., Faustino, R. The topology of inter-industry relations from the Portuguese national accounts Physica A 479, 236-248 2017
Borges, R., Gubareva, M. Rethinking Economic Capital Management through the Integrated Derivative-based Treatment of Interest Rate and Credit Risk Annals of Operations Research February 2017, 1-30 2017
Catao, L., Fostel, A., Rancière, R. Fiscal Discoveries and Yield Decouplings IMF Economic Review 65(4), 704-744 2017
Catao, L., Mano, R. Default Premium Journal of International Economics 107, 91-110 2017

Fontoura, P., Serôdio, P. The export performance of the 2004 EU Enlargement countries since the 1990s: a constant market share analysis <i>International Advances in Economic Research</i> 23(2), 161-174 2017
Franco, S., Jan Brueckner Parking and Urban Form <i>Journal of Economic Geography</i> 17(1), 95-127 2017
Garcia, F., Cosandier, C., Knauff, M. Price competition with differentiated goods and incomplete product awareness <i>Economic Theory</i> Maio 2017, 1-25 2017
Garcia, M.T., Fontainha, Elsa, Passos, José (Hiring older workers: The case of Portugal <i>The Journal of the Economics of Ageing</i> 9, 71-77 2017
Garcia, M.T., Marques, P. Ownership of individual retirement accounts – an empirical analysis based on SHARE <i>International Review of Applied Economics</i> 31(1), 69-82 2017
Gaspar, R. M. and R. Pimentel (2017), "On Swap Rate Dynamics: To Freeze or Not to Freeze?", <i>International Journal of Computer Mathematics</i> , 94 (11), 2208 - 2222
Esquível, M.L.; R.M. Gaspar and J.B. Sousa (2017), "Default Propensity implicit in pulled to par VaR for bonds", <i>Discussiones Mathematicae Probability and Statistics</i> 37, 79 - 99
Godinho, M.M., Alon, I. Business incubators in a developing economy: Evidence from Brazil's northeast region <i>Science and Public Policy</i> 44(1), 13-25 2017
Godinho, M.M., Confraria, H., Wang, L. Determinants of citation impact: A comparative analysis of the GlobalSouth versus the Global North <i>Research Policy</i> 46(1), 265-279 2017
Grossinho, Yaser Kord Faghan and Daniel Ševčovič, Pricing Perpetual Put Options by the Black–Scholes Equation with a Nonlinear Volatility Function, <i>Asia-Pacific Financial Markets</i> , 2017, vol. 24, issue 4, 291-308
Iskrev, N., Mendicino, C., Gomez, S. Monetary Policy Shocks: We got News! <i>Journal of Economic Dynamics and Control</i> 74, 108-128 2017
Lopes, J.C., Amaral, J.F. Forecasting Errors by the Troika in the Economic Adjustment Programme for Portugal <i>Cambridge Journal of Economics</i> 41(4), 1021-1041 2017
Lopes, J.C., Amaral, J.F. Self-defeating austerity? Assessing the impact of fiscal consolidations on unemployment <i>Economic and Labour Relations Review</i> 28(1), 3-19 2017
Lopes, J.C., Branco, A. CLÚSTER Y DESEMPEÑO DE LAS EMPRESAS: EVIDENCIA HISTORICA DE LA INDUSTRIA PORTUGUESA DEL CORCHO <i>Investigaciones de Historia Economica</i> 14(1), 43-53 2017
Lopes, J.C., Santos, A. Vertical Specialization, Global Value Chains and International Trade: the Rubber and Plastics Industry in Portugal and Comparison with Northern and Southern EU countries <i>Regional and Sectoral Economic Studies</i> 16(2), 15-28 2017
Melo, P.C. People, Places and Earnings Differentials in Scotland <i>Regional Studies</i> 51(3), 389-403 2017
Melo, P.C., Graham, D.J., Levinson, D. and Aarabi, S. Agglomeration, Accessibility, and Productivity: Evidence for Large Metropolitan Areas in the US <i>Urban Studies</i> 54(1), 179–195 2017
Melo, P.C., Mohammad, S.I., Graham, D.J. The Effect of the Dubai Metro on the Value of Residential and Commercial Properties <i>Journal of Transport and Land Use</i> 10(1), 263-290 2017
Mendicino, C., Lambertini, L., Punzi, M.T. Expectation-Driven Cycles in the Housing Market <i>Economic Modelling</i> 60, 297-312 2017
Panetti, E. A Theory of Bank Illiquidity and Default with Hidden Trades <i>Review of Finance</i> 21, 1123-1157 2017
Mourão, M. C., L.S. Pinto, An updated annotated bibliography on arc routing problems, <i>Networks</i> (2017), 70 (3), pp 144-194
Constantino, M., M. C. Mourão, L.S. Pinto, Dissimilar arc routing problems, <i>Networks</i> (2017), 70 (3), pp 233-245

4. Conferences, seminars and workshops

1. St. Aubyn, M.; Costa, P.; Rodrigues, M. (2017) Fourth Lisbon Research Workshop on Economics, Statistics and Econometrics of Education, ISEG/UL, Portugal. 26-27 January. URL: <http://cemapre.iseg.ulisboa.pt/educonf/4e3/index.php>
2. Alda Carvalho, 2017, *Combinatorial Game Theory Colloquium II*, Faculdade de Ciências, ULisboa, 25-27 Jan. <http://cgtc.eu/2/>
3. Alda Carvalho, 2017, *Recreational Mathematics Colloquium V (2017) · G4G Europe*, MUHNAC, Lisboa, 28-31 Jan. Link: <http://ludicum.org/ev/rm/17>
4. Maria do Rosário Grossinho, Manuel Guerra, João Janela, 2017, *Lisbon Financial Mathematics 2017, 4th edition, Evolutionary PDE and Mathematical Finance - theory, methods and applications*, ISEG, ULisboa, 16-17 Feb. Link: <http://cemapre.iseg.ulisboa.pt/events/event.php?id=168>
5. Joana Pais, Rui Paulo, 2017, *Research in Economics and Mathematics Workshop*, ISEG, ULisboa, 22 Mar. Link: <http://cemapre.iseg.ulisboa.pt/events/event.php?id=170>
6. Manuel Guerra, 2017, *EPCO 2017 - Portuguese Meeting on Optimal Control*, ISEG, ULisboa, 12 Jun. Link: <http://epco2017.weebly.com/>
7. Afonso, A. (2017) 6th UECE Conference on Economic and Financial Adjustments. ISEG/UL Lisbon. 23rd June 2016. URL: <http://pascal.iseg.utl.pt/~uece/events/2017/efae/index.shtml>
8. Maria do Rosário Grossinho, Manuel Guerra, João Guerra, João Janela, Fernando Gonçalves, 2017, *International Conference on Computational Finance 2017 - ICCF 2017*, ISEG, ULisboa, 4-8 Set. Link: <http://cemapre.iseg.ulisboa.pt/iccf2017/>
9. Nunes, F.; Albuquerque, C. (2017) 5th International Workshop on the Socio-Economics of Ageing (IWSEA). ISEG/UL Lisbon. 27 October 2017. URL: <http://www.iwsea.pt/>
10. Garcia, F.; Pais, J., Opromolla, L., Resend, J. (2017) UECE Lisbon Meetings 2017: Game Theory and Applications. November 9-11. ISEG/UL Lisbon. URL: <https://www.lisbonmeetings.com/previous-speakers>

5. PhD programs

REM currently hosts together with ISEG several Doctoral programs, notably: Economics; Applied Mathematics for Economics and Management; and Development Studies.

The Coordination of these three programs is done by REM members while the teaching of the first two programmes is also mainly done by REM members. In addition, REM is also linked to the PhD in Management and to the PhD in Economic and Social History as one of the host institutions.

All the PhD courses have been accredited again in 2015, for six years by the Portuguese national agency A3ES ("Agência de Avaliação e Acreditação do Ensino Superior", Agency for Assessment and Accreditation of Higher Education - A3ES).

Ph.D. in Economics

The Ph.D. in Economics is designed for those who are looking for an advanced education and wish to carry out research in Economics, Macro or Micro related, in preparation for a highly qualified role in the public or private sector, university teaching and research, the leadership and management of national and international organizations, consulting, training, and research projects and studies. It is a research-focused plan that prepares for a profession that demands a high level of technical and scientific qualification, enabling graduates notably to pursue an international career.

Ph.D. in Applied Mathematics for Economics and Management

The Ph.D. in Applied Mathematics for Economics and Management is designed to meet the needs of those who wish to enhance their proficiency of mathematical methods and techniques in order to make original contributions in the fields within the scope of knowledge of this Ph.D. Programme or to develop and implement solutions for problems in the areas of Economics and Management. It targets both those who want to pursue an academic career and professionals who want to develop the skills to devise and implement innovative quantitative approaches for real-world problems.

Ph.D. in Development Studies

The Ph.D. in Development Studies is a research-focused program in the interdisciplinary area of the process of economic, social and political changes in modern societies. This program, originally hosted by ISEG, became a joint venture of ISEG, ICS (Institute of Social Sciences), IGOT (Institute of Geographic and Spatial Planning) and ISA (School of Agriculture) of Universidade de Lisboa.

6. Ongoing research projects

Funding source	Project	Title	REM research team	Period (months)	Start Date	End Date	Funding
FCT	UID/ECO/00436/2013	Strategic Project	UECE	48	01/01/2015	31/12/2018	112 500
FCT	PTDC/IIM-ECO/4546/2014	Theory and Experiments in Matching Markets	Joana Pais, Sofia Franco, Filomena Garcia	36	01/07/2016	30/06/2019	57 210
FCT	PTDC/IIM-ECO/5389/2014	Yields, financial, macro and fiscal interactions	António Afonso	30	01/05/2016	31/10/2018	67 774
FCT	PTDC/IIM-ECO/6337/2014	Connecting the Real Economy and the Financial System: Theory and Empirics	Luca Opromolla, Ettore Panetti	36	11/04/2016	10/04/2019	65 928
FCT	PTDC/ATP-DEM/0441/2014	Portugal: Regional Integration of Demography and Economy	João Lopes, João Ferreira do Amaral	36	15/03/2016	14/03/2019	58 038
FCT	UID/Multi/00491/2013	Strategic Project	CEMAPRE	36	01/04/2015	31/03/2018	231 030
Fundación MAPFRE	Fundación MAPFRE	Estimating the effects of technology advancement on pricing automobile insurance	Alfredo dos Reis	6	01/10/2017	31/03/2018	15 000

7. Staff

Research members

Executive board

António Afonso, Principal Researcher, President of REM, and President of UECE

Isabel Proença, Board member of REM, and President of CEMAPRE

Joana Pais, Board member of REM and UECE

Members



Agnieszka Bergel

Doutoramento em Matemática Aplicada à Economia e Gestão, Universidade de Lisboa, Portugal (2013)

Actuarial science, statistics, risk theory, financial mathematics



Alda Carvalho

Doutoramento em Matemática Aplicada à Economia e Gestão, Universidade Técnica de Lisboa, Portugal (2010)

Time series



Alexandra Moura

Dottore di Ricerca in Mathematical Engineering, Politecnico di Milano, Italy (2007)

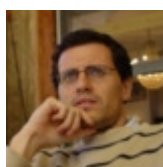
Applied Mathematics, Mathematical Engineering, Numerical Analysis, Statistics and Actuarial Sciences



Alfredo D Egídio dos Reis

PhD in Actuarial Mathematics and Statistics, Heriot-Watt University, UK (1994)

Actuarial science, risk theory, credibility theory, ruin theory



Álvaro Novo

PhD in Economics, University of Illinois at Urbana-Champaign, USA (2001)

Labor economics



Álvaro Manuel Pina

PhD in Economics, European University Institute, Italy (2001)

Fiscal policy in the European Monetary Union, Fiscal rules and institutions, Monetary integration and business cycles, macroeconomic modelling



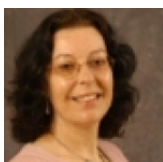
Amélia Bastos

Doutoramento em Economia, Universidade Técnica de Lisboa, Portugal (1999)
Social economics, poverty and social exclusion, child poverty



António Afonso

Doutoramento em Economia, Universidade Técnica de Lisboa, Portugal (2002)
Applied Economics, Public Finances, Financial Economics, Fiscal Policy



Cândida Ferreira

Doutoramento em Economia, Universidade Técnica de Lisboa, Portugal (1996)
Monetary and Financial Economics, Financial Markets and the Macroeconomy, Financial Integration



Carlos Farinha Rodrigues

Doutoramento em Economia, Universidade Técnica de Lisboa, Portugal (2005)
Distribuição do Rendimento, Desigualdade e Pobreza; Política Social, Avaliação de Políticas Públicas, Redistribuição do Rendimento, Microsimulação de Políticas Sociais e Fiscais.



Caterina Mendicino

PhD in Economics, Stockholm School of Economics, Sweden (2006)
Macro-Financial Linkages, Monetary and Macro-Prudential Policy, General equilibrium models of banks and of the credit channel transmission mechanism



Esmeralda A Ramalho

PhD in Economics, University of Bristol, UK (2002)
Microeconometrics



Eugenio Rodriguez Martinez

Doutoramento em Matemática Aplicada à Economia e Gestão, Universidade de Lisboa, Portugal (2017)
Actuarial sciences



Ettore Panetti

PhD in Economics, IIES-Stockholm University, Sweden (2013)
Macroeconomics, Banking, Financial stability, Economic growth



Fernando F Gonçalves

PhD in Mathematics and Statistics, University of Edinburgh, UK (2007)

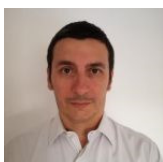
Financial mathematics and applied econometrics



Fernando Martins

Doutoramento em Economia, Universidade de Lisboa, Portugal (2015)

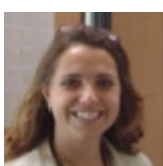
Microeconomics



Filipe Oliveira

Docteur en Mathématiques, Université Paris XI, France (2001)

Partial Differential Equations



Filomena Garcia

Docteur en Sciences Économiques, Université Catholique de Louvain, Belgium (2006)

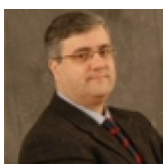
Industrial Organization, Game Theory, Matching, Networks, Banking, Economics of Education



Francisco Louçã

Doutoramento em Economia, Universidade Técnica de Lisboa, Portugal (1996)

Macroeconomic dynamics, Complexity, Evolutionary economics, History of economic thought



Francisco Nunes

Doutoramento em Economia, Universidade Técnica de Lisboa, Portugal (2005)

Pobreza e Exclusão Social, Sistemas de Segurança Social, Solidariedade e Acção Social, Protecção Social, Rendimento Mínimo Garantido



Graça Leão Fernandes

Doutoramento em Economia, Universidade Técnica de Lisboa, Portugal (1992)

Labour market



Isabel Proença

Docteur en Sciences Économiques, Université Catholique de Louvain, Belgium (1995)

Microeconometrics, models for discrete responses, panel data, bootstrap methods



Joana Pais

Doctor en Economia, Universitat Autònoma de Barcelona, Spain (2005)

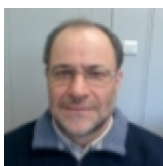
Game theory, Matching theory, Auction theory



João Andrade e Silva

Doutoramento em Economia, Universidade Técnica de Lisboa, Portugal (1991)

Actuarial science



João Dias

Doutoramento em Economia, Universidade Técnica de Lisboa, Portugal (1993)

Statistics, econometrics



João Ferreira do Amaral

Doutoramento em Economia, Universidade Técnica de Lisboa, Portugal (1984)

Macroeconomics, Leontief theory, input/output, Information



João Janela

Doutoramento em Matemática, Universidade Técnica de Lisboa, Portugal (2008)

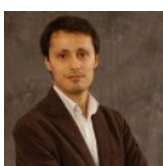
Numerical analysis



João Carlos Lopes

Doutoramento em Economia, Universidade Técnica de Lisboa, Portugal (1996)

Input-Output Analysis and Portuguese Economy



João Lopes Dias

PhD in Mathematics, University of Cambridge, UK (2002)

Dynamical systems, renormalisation, generic conservative dynamics



João Nicolau

Doutoramento em Matemática Aplicada à Economia e Gestão, Universidade Técnica de Lisboa, Portugal (2001)

Estimation of stochastic differential equations, volatility of financial time series, non-linear time series



João M E Guerra

Doctor en Matemàtiques, Universitat de Barcelona, Spain (2009)

Stochastic Analysis and Mathematical Finance



Jorge Caiado

Doutoramento em Matemática Aplicada à Economia e Gestão, Universidade Técnica de Lisboa, Portugal (2006)

Time series, forecasting methods, applied econometrics



Jorge Santos

PhD in Economics, University of Kent, UK (1984)

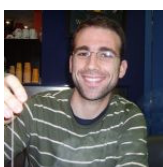
Macroeconomics



José Passos

PhD in Economics, University of Bristol, UK (1997)

Microeconometrics, data analysis



José Pedro Gaivão

PhD in Mathematics, University of Warwick, UK (2010)

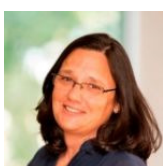
Dynamical systems, Hamiltonian dynamics



José Pedro Pontes

Doutoramento em Economia, Universidade Técnica de Lisboa, Portugal (1987)

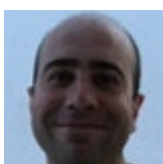
Regional and Urban Economics, International Economics, Industrial Organization, Non-cooperative Game Theory



Leonor S Pinto

Doutoramento em Matemática Aplicada à Economia e Gestão, Universidade Técnica de Lisboa, Portugal (2004)

Operational research, combinatorial optimization



Luca David Opromolla

PhD in Economics, New York University, USA (2006)

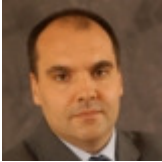
International Trade, Industrial Organization, Labor Economics



Luis Catão

PhD in Economics, University of Cambridge, UK (1992)

International finance and open economy macroeconomics



Luís Costa

PhD in Economics, University of York, UK (2001)

Dynamic general-equilibrium models, Fiscal policy, Business cycles, Industrial organisation-macroeconomics interactions, Open-economy macroeconomics



Manuel Guerra

Doutoramento em Matemática, Universidade de Aveiro, Portugal (2001)

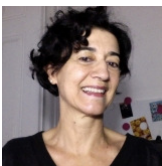
Control theory



Manuel M. Godinho

PhD in Science and Technology Policy, University of Sussex, UK (1995)

research interests



Margarida Abreu

Docteur en Sciences Economiques, Universite Paris-Nanterre, France (1997)

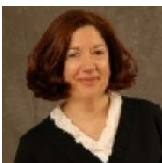
Behavioral Finance, Financial Economics, Financial Markets, Investors Behavior, Monetary Integration, European Monetary Union



Maria de Fátima Fabião Ribeiro

Doutoramento em Matemática Aplicada à Economia e Gestão, Universidade Técnica de Lisboa, Portugal (2005)

Financial mathematics, delay differential equations



Maria de Lourdes Centeno

PhD in Actuarial Science, Heriot-Watt University, UK (1985)

Reinsurance, credibility theory, bonus systems, loss reserving, ruin theory



Maria do Rosário Grossinho

Doutoramento em Matemática, Universidade de Lisboa, Portugal (1988)

Differential equations and financial mathematics



Maria Eugénia Ferrão

Doutoramento em Teoria de Controle e Estatística, Pontifícia Universidade Católica do Rio de Janeiro, Brazil (1999)

Social Statistics



Mário Centeno

PhD in Economics, Harvard University, USA (2000)

Microeconomics



Miguel St. Aubyn

PhD in Economics, University of London, UK (1995)

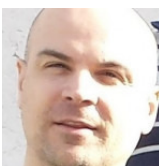
Applied Macroeconomics, Budgetary Policy, Economic Growth, Efficiency Measurement



Nicoletta Rosati

Dottore di Ricerca in Statistica Applicata, Università degli Studi di Padova, Italy (2001)

Econometrics of panels and pseudo-panels, non-linear microeconomic models, health and medical statistics.



Nikolay Iskrev

PhD in Economics, University of Michigan, USA (2008)

Econometrics, macroeconomics, monetary policy



Nuno Crato

PhD in Applied Mathematics, University of Delaware, USA (1992)

Time series, stochastic processes



Nuno Sobreira

Doutoramento em Economia, Nova School of Business and Economics, Portugal (2012)

Structural breaks, economic forecasting, realized and stochastic volatility, unit roots, cointegration, long memory



Onofre Simões

Doutoramento em Organização e Gestão de Empresas, Universidade Técnica de Lisboa, Portugal (1997)

Actuarial science, financial mathematics



Patricia Melo

PhD in Economics, Imperial College London, UK (2010)

Economic geography



Paula Fontoura

Doutoramento em Economia, Universidade Técnica de Lisboa, Portugal (1990)

International Trade, Economic Geography, Foreign Direct Investment



Paulo Brito

Doutoramento em Economia, Universidade Técnica de Lisboa, Portugal (1995)

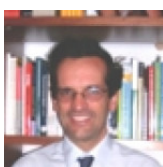
Macroeconomics



Paulo Parente

PhD in Economics, University of Warwick, UK (2007)

Econometric theory



Paulo Trigo Pereira

PhD in Economics, University of Leicester, UK (1994)

Acção colectiva, Economia das instituições, Economia experimental, Finanças locais, Escolha pública



Pedro Leão

Doutoramento em Economia, Universidade Técnica de Lisboa, Portugal (1998)

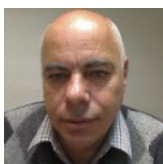
Macroeconomics, International Economics



Pierre Hoonhout

PhD in Economics, University College London, UK (2011)

Econometrics



Raúl Brás

Doutoramento em Matemática Aplicada à Economia e à Gestão, Universidade Técnica de Lisboa, Portugal (2013)

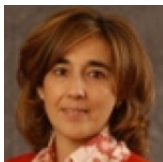
Combinatorial optimization, computer science



Raquel M Gaspar

PhD in Finance, Stockholm School of Economics, Sweden (2006)

Mathematical finance, Term Structure Models, Interest rate & Credit Risk Models, Convexity Adjustments, Structured Products



Rosa Borges

Doutoramento em Economia, Universidade Técnica de Lisboa, Portugal (2001)

Capital Markets, Dividend and taxes, Capital Markets Efficiency, Bank and Assurance, Financial System and Risk, Financial Economics



Rui Paulo

PhD in Statistics, Duke University, USA (2002)

Bayesian Inference, statistical analysis of computer models, Bayesian computation



Sandra Maximiano

PhD in Economics, University of Amsterdam, The Netherlands (2007)

Behavioral Economics, Experimental Economics, Public Economics, Economics of Gender, Organizational and Personal Economics, Economics of Piracy



Sofia Franco

PhD in Environmental Science and Management, University of California in Santa Barbara, USA (2007)

Urban Economics, Land Use, Spatial and Dynamic Modelling, Transportation



Sudipto Karmakar

PhD in Economics, Boston University, USA (2013)

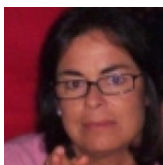
Macroeconomics, Macprudential regulation and Real-financial Sector Linkages



Susana Santos

Doutoramento em Economia, Universidade Técnica de Lisboa, Portugal (1999)

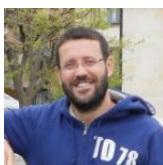
Social and National Accounting, SAM-based Macro-modelling, Sustainable Development



Tanya Araujo

Doutoramento em Matemática Aplicada, Universidade Técnica de Lisboa, Portugal (1995)

Computational Economics and Finance, Agent-based Modeling, Network structure and dynamics



Telmo Peixe

Doutoramento em Matemática, Universidade de Lisboa, Portugal (2015)

Hamiltonian Dynamics, Game Theory, Lotka-Volterra Systems, Replicator Equation

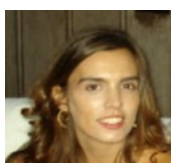


Teresa Garcia

Doutoramento em Economia, Universidade Técnica de Lisboa, Portugal (2001)

Pension economics and finance, applied economics, microeconomics and financial economics

Management Support



Sandra Araújo



Andreyana Caires

REM, Rua Miguel Lupi, 20 - 1249-078 Lisboa, Portugal
phone: (+351) 213 925 912

@ rem@iseg.ulisboa.pt

[http:// rem.rc.iseg.ulisboa.pt/](http://rem.rc.iseg.ulisboa.pt/)

<https://twitter.com/ResearchRem>