

## Profile

### Personal



Name João Pedro Vidal Nunes  
Department Department of Finance  
Category Full Professor  
Research group [Finance](#)  
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### Teaching and Research Interests

- Option Pricing Interest rate models Exotic options and Structured products Stochastic calculus

### Qualifications

Type	Course	Institution	Year
Doctorate degree	Gestão	University of Warwick	2000
Master degree	Economia	Instituto Superior de Economia e Gestão - UTL	1994
Undergraduate degree	Organização e Gestão de Empresas	ISCTE-IUL - Instituto Superior Ciências Trabalho e da Empresa	1990

### Contacts

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Ciência-IUL Profile [Visit Ciência-IUL Profile](#)

## Academic activities

## Courses

"Stochastic Calculus in Finance I" (Coordinator)

"Stochastic Calculus in Finance II" (Coordinator)

"Equações com Derivados Parciais em Finanças" (Coordinator)

"Corporate Finance for Lawyers" (Coordinator)

"Continuous-Time Finance" (Coordinator)

"Continuous-Time Finance" (Coordinator)

"Mergers and Acquisitions and Company Valuation" (Coordinator)

"Investments" (Coordinator)

"Investments" (Coordinator)

"Investments" (Coordinator)

"Investments" (Coordinator)

"Investments" (Coordinator)

"Investments" (Coordinator)

"Investments (Mf)" (Coordinator)

"Investments (Mf)" (Coordinator)

"Financial Markets" (Coordinator)

"Numerical Methods" (Coordinator)

"Modelos, Estrutura Temporal E Taxa De Juro" (Coordinator)

"Modelos, Estrutura Temporal E Taxa De Juro" (Coordinator)

"Modelos, Estrutura Temporal E Taxa De Juro" (Coordinator)

"Exotic Options" (Coordinator)

"Exotic Options" (Coordinator)

"Exotic Options" (Coordinator)

"Programming" (Coordinator)

## Supervisions

### PhD Thesis

João Pedro Ruas, "Three Essays on the Valuation of American-style Options", João Pedro Vidal Nunes, PhD Thesis, Concluded, 2013

### Master Thesis

Ricardo Manuel Santos Oliveira Tomaz, "The Market Value of Corporate Votes: Another Approach. ", João Pedro Vidal Nunes, Master Thesis, Concluded, 2017

João Miguel Sousa Machado Castilho Borges, "Impacto da Política do Quantitative Easing num Portfólio de Investimento ", João Pedro Vidal Nunes, Master Thesis, Concluded, 2017

Inês Sofia Morais Ferreira, "Opções sobre commodities ", João Pedro Vidal Nunes, Master Thesis, Concluded, 2016

Bruno Filipe Soares dos Santos Sousa, "Credit Valuation Adjustment ", João Pedro Vidal Nunes, Master Thesis, Concluded, 2016

Ricardo Nuno Santos Aleixo de Matos, "Stochastic Volatility Jump-diffusion Models us time-changed levy Processes", João Pedro Vidal Nunes, Master Thesis, Concluded, 2014

Pedro Simões Oliveira, "The corvolution method for prining American options under levy processes", João Pedro Vidal Nunes, Master Thesis, Concluded, 2014

Igor Viktorovich Kravchenko, "Barrier Option Pricing Via Heston Model", João Pedro Vidal Nunes, Master Thesis, Concluded, 2013

Sara Alexandra da Costa Veloso, "O Modelo Fiscal de Avaliação de Prédios Urbanos e o Ciclo Económico do País", João Pedro Vidal Nunes, Master Thesis, Concluded, 2013

João Pedro Bento Ruas, "Three Essays on the valuation of American-style options", João Pedro Vidal Nunes, Master Thesis, Concluded, 2013

### Final Project

Margarida Dinis Silvestre, "Pateo Wine Bar & Heritage Shop", João Pedro Vidal Nunes, Final Project, Concluded, 2012

Sara Isabel Poço Ramos, "Decomposição, Avaliação e Hedging de um Produto Estruturado", João Pedro Vidal Nunes, Final Project, Concluded, 2012

Tiago Miguel Vargas Tavares, "Modelos de Taxa de Juro após a Crise de Crédito e Liquidez", João Pedro Vidal Nunes, Final Project, Concluded, 2012

Iva Bagic, "Singue and Combined Option Trading Strategies. ", João Pedro Vidal Nunes, Final Project, Concluded, 2011

Arne Neumann, "Assembly and Preparation for the Derivative Market - A Convenience Comparison Between Financial Options and Futures with View to the Eurex and Liffe. ", João Pedro Vidal Nunes, Final Project, Concluded, 2011

William Hilebrand, "The Valuation of Callable Defaultable Bonds. ", João Pedro Vidal Nunes, Final Project, Concluded, 2011

Luís Filipe Dôres Veiga, "", João Pedro Vidal Nunes, Final Project, Concluded, 2011

Filipa Isabel Ferreira Alcaide, "Covered Bond Market - Is Legislation Impact Measurable? ", João Pedro Vidal Nunes, Final Project, Concluded, 2011

Jorge Alexandre Rodrigues Domingues, "", João Pedro Vidal Nunes, Final Project, Concluded, 2011

Maria da Graça Teixeira Duarte de Aguiar Câmara, "O Efeito Smile - Uma Aplicação ao DAX. ", João Pedro Vidal Nunes, Final Project, Concluded, 2010

Diogo Monteiro da Costa Soares Justino, "Hedging of Barrier Options. ", João Pedro Vidal Nunes, Final Project, Concluded, 2010

Cláudia Patrícia Gonçalves Simões, "Euro Área Inflation-Linked Bonds Market: Analysis and immunization abilities. ", João Pedro Vidal Nunes, Final Project, Concluded, 2010

Aloísio Bragança Gomes Will, "Ambidiesel - Produção de Combustíveis Alternativos.", João Pedro Vidal Nunes, Final Project, Concluded, 2010

Carina Sofia Ferreira da Silva, "O Mercado Organizado de CO2 - Oportunidade de Investimento e Melhoria do Ambiente Compatíveis?", João Pedro Vidal Nunes, Final Project, Concluded, 2009

Fernando Manuel de Deus Infante, "Basileia II: Análise das Implicações do Pilar 2 na Organização do Processo de Supervisão.", João Pedro Vidal Nunes, Final Project, Concluded, 2009

## Scientific Activities

### Scientific Articles in International Journals

Nunes, J. P. V., Dias, J. C. & Ruas, J. P. (2018). The early exercise boundary under the jump to default extended CEV model. Applied Mathematics and Optimization. N/A, [Ciência-IUL](#), Indexada (SCOPUS)

Dias, J. C. & Nunes, J. P. V. (2017). Universal recurrence algorithm for computing Nuttall, generalized Marcum and incomplete Toronto functions and moments of a noncentral x2 random variable. European Journal of Operational Research . 265 (2), 559-570, [Ciência-IUL](#), Indexada (SCOPUS)

Nunes, J. & Alcária, T. (2016). Valuation of forward start options under affine jump-diffusion models. Quantitative Finance. 16 (5), 727-747, [Ciência-IUL](#), Indexada (SCOPUS/ISI)

Ruas, J., Nunes, J. & Dias, J. C. (2016). In-out parity relations for American-style barrier options. Journal of Derivatives. 23 (4), 20-32, [Ciência-IUL](#), Indexada (SCOPUS/ISI)

Dias, J. C., Nunes, J. & Ruas, J. (2015). Pricing and static hedging of european-style double barrier options under the jump to default extended CEV model. Quantitative Finance. 15 (12), 1995-2010, [Ciência-IUL](#), Indexada (SCOPUS/ISI)

Nunes, J., Ruas, J. & Dias, J. C. (2015). Pricing and static hedging of American-style knock-in options on defaultable stocks. Journal of Banking and Finance. 58, 343-360, [Ciência-IUL](#), Indexada (SCOPUS/ISI)

Oliveira, L., Nunes, J. & Malcata, L. (2014). The performance of deterministic and stochastic interest rate risk measures: another question of dimensions?. Portuguese Economic Journal. 13 (3), 141-165, [Ciência-IUL](#), Indexada (SCOPUS/ISI)

- Nunes, J. & Prazeres, P. (2014). Pricing swaptions under multifactor gaussian HJM models. *Mathematical Finance*. 24 (4), 762-789, [Ciência-IUL](#), Indexada (SCOPUS/ISI)
- Ruas, J. P., Dias, J. C. & Nunes, J. (2013). Pricing and static hedging of American-style options under the jump to default extended CEV model. *Journal of Banking and Finance*. 37 (11), 4059-4072, [Ciência-IUL](#), Indexada (SCOPUS/ISI)
- Oliveira, L., Curto, J. D. & Nunes, J. P. (2012). The determinants of sovereign credit spread changes in the Euro-zone. *Journal of International Financial Markets, Institutions & Money*. 22 (2), 278-304, [Ciência-IUL](#), Indexada (SCOPUS/ISI)
- Dias, J. C. & Nunes, J. P. (2011). Pricing real options under the constant elasticity of variance diffusion. *Journal of Futures Markets*. 31 (3), 230-250, [Ciência-IUL](#), Indexada (SCOPUS/ISI)
- Nunes, J. P. V. (2011). American options and callable bonds under stochastic interest rates and endogenous bankruptcy. *Review of Derivatives Research*. 14 (3), 283-332, [Ciência-IUL](#), Indexada (SCOPUS/ISI)
- Nunes, J. (2009). Pricing American Options under the Constant Elasticity of Variance Model and Subject to Bankruptcy. *Journal of Financial and Quantitative Analysis*. 44, 1231-1263, [Ciência-IUL](#), Indexada (SCOPUS/ISI)
- Nunes, J. P. V. & Oliveira, L. A. F. (2007). Multifactor and analytical valuation of treasury bond futures with an embedded quality option. *Journal of Futures Markets*. 27 (3), 275-303, [Ciência-IUL](#)
- Nunes, J. P. V. (2006). Barrier options on spot LIBOR rates under multi-factor Gaussian HJM models. *Journal of Derivatives*. 14 (1), 61-81, [Ciência-IUL](#), Indexada (SCOPUS)
- Nunes, J. P. V. (2004). Multifactor valuation of floating range notes. *Mathematical Finance*. 14 (2), 79-97, [Ciência-IUL](#), Indexada (SCOPUS/ISI)
- Nunes, J. P. V. (2004). A general equilibrium framework for the affine class of term structure models. *Portuguese Economic Journal*. 3 (1), 15-48, [Ciência-IUL](#)
- Nunes, J., Clewlow, L. & Hodges, S. (1999). Interest Rate Derivatives in a Duffie and Kan Model with Stochastic Volatility: An Arrow-Debreu Pricing Approach. *Review of Derivatives Research*. 3, 5-66, [Ciência-IUL](#), Indexada (SCOPUS)
- Nunes, J. (1998). Interest Rate Options in a Duffie-Kan Model with Deterministic Volatility. *Portuguese Review of Financial Markets*. 1, 63-101, [Ciência-IUL](#)

## Books

- Mota, A., Barroso, C., Nunes, J., Miguel A. Ferreira & Oliveira, L. (2012). *Finanças da Empresa: Teoria e Prática*. Lisboa/Portugal. Sílabo., [Ciência-IUL](#)
- Mota, António, Barroso, C., Nunes, J. & Miguel A. Ferreira (2011). *Finanças da Empresa Teoria e Prática*. Portugal. Sílabo., [Ciência-IUL](#)

## Other publications

- Luís Alberto Ferreira de Oliveira, João Pedro Vidal Nunes (2012) "The Performance of Deterministic and Stochastic Interest Rate Risk Measures: Another Question of Dimension?", Oliveira, L. & Nunes, J. (2012). The Performance of Deterministic and Stochastic Interest Rate Risk Measures: Another Question of Dimension?. SSRN. 0-0, [Ciência-IUL](#)

Luís Alberto Ferreira de Oliveira, João Pedro Vidal Nunes (2008) "The Performance of Deterministic and Stochastic Interest Rate Risk Measures ", Oliveira, L. & Nunes, J. (2008). The Performance of Deterministic and Stochastic Interest Rate Risk Measures . SSRN. 0-0, [Ciência-IUL](#)

#### Printed in Scientific Book

Mota, A., Barroso, C., Nunes, J., Miguel A. Ferreira & Oliveira, L. (2012). Finanças da Empresa: Teoria e Prática . Lisboa/Portugal. Sílabo., [Ciência-IUL](#)

Mota, António, Barroso, C., Nunes, J. & Miguel A. Ferreira (2011). Finanças da Empresa Teoria e Prática. Portugal. Sílabo., [Ciência-IUL](#)

#### International Communications

##### Invited

Dias, J. C. & Nunes, J. (2017). Valuation of Lookback Options and Turbo Warrants on Defaultable Stocks. XXIII Congresso da Sociedade Portuguesa de Estatística., [Ciência-IUL](#)

##### Oral Presentation

Dias, J. C., Laureano, L. & Nunes, J. (2017). Corporate Security Valuation under a Barrier Option Framework with State-Dependent Volatility. 5th Paris Financial Management Conference., [Ciência-IUL](#)

Leite, J., Dias, J. C. & Nunes, J. (2017). Computation of Three Discrete Distribution Mixtures of Continuous Distributions: Stability Analysis. 11th International Conference on Computational and Financial Econometrics., [Ciência-IUL](#)

Leite, J., Dias, J. C. & Nunes, J. (2017). Cálculo Computacional de Misturas Discretas de Distribuições Contínuas: Revisão do Método de Benton e Krishnamoorthy. XXIII Congresso da Sociedade Portuguesa de Estatística., [Ciência-IUL](#)

Dias, J. C. & Nunes, J. (2017). Valuation of Lookback Options and Turbo Warrants on Defaultable Stocks. 2nd International Conference on Computational Finance., [Ciência-IUL](#)

Nunes, J., Dias, J. C. & Ruas, J. (2016). The Early Exercise Boundary under the Jump to Default Extended CEV Model. 9th World Congress of the Bachelier Finance Society., [Ciência-IUL](#)

Dias, J. C. & Nunes, J. (2016). Valuation of Lookback Options and Turbo Warrants on Defaultable Stocks. 9th World Congress of the Bachelier Finance Society., [Ciência-IUL](#)

Dias, J. C., Nunes, J. & Ruas, J. (2014). Pricing and Static Hedging of European-style Double Barrier Options under the Jump to Default Extended CEV Model. 8th International Conference of the Portuguese Finance Network., [Ciência-IUL](#)

Nunes, J., Ruas, J. & Dias, J. C. (2014). Static Hedging and Early Exercise Boundaries for American-style Barrier Options. 8th World Congress of the Bachelier Finance Society., [Ciência-IUL](#)

Dias, J. C., Nunes, J. & Ruas, J. (2014). Pricing and Static Hedging of American-style Double Knock-In Options. Mathematical Finance Workshop: Stochastic Analysis and Numerical Approximations in Mathematical Finance., [Ciência-IUL](#)

Dias, J.C., Nunes, J.P. & Ruas, J. P. (2013). Pricing and Static Hedging of American Options under the Jump to Default Extended CEV Model. FMA 17th European Conference., [Ciência-IUL](#)

Nunes, J. & Oliveira, L. (2013). The Performance of Deterministic and Stochastic Interest Rate Risk Measures: Another Question of Dimension?. FMA Europe 2013 Meeting., [Ciência-IUL](#)

Nunes, J. & Oliveira, L. (2013). The Performance of Deterministic and Stochastic Interest Rate Risk Measures: Another Question of Dimension?. 7th Annual Meeting of the Portuguese Economic Journal., [Ciência-IUL](#)

Dias, J.C., Nunes, J.P. & Ruas, J. P. (2013). In-Out Parity Relations and Early Exercise Boundaries for American-Style Barrier Options. FMA 17th European Conference., [Ciência-IUL](#)

Dias, J.C., Nunes, J.P. & Ruas, J. P. (2012). Pricing and Static Hedging of American Options under the Jump to Default Extended CEV Model. INFORMS Annual Meeting., [Ciência-IUL](#)

Nunes, J. & Ruas, J. (2012). The Implied Volatility Bias: A No-Arbitrage Approach for Short-Dated Options. EFMA 2012 Meeting., [Ciência-IUL](#)

Dias, J.C. & Nunes, J.P. (2012). The Valuation of Double Barrier Options under Multifactor Pricing Models. SIAM Conference on Financial Mathematics & Engineering., [Ciência-IUL](#)

Dias, J.C. & Nunes, J.P. (2012). Pricing Double Barrier Options under the CEV Process: A Speed-Accuracy Comparison of Alternative Methods. 7th World Congress of the Bachelier Finance Society., [Ciência-IUL](#)

Dias, J.C. & Nunes, J.P. (2012). Truncated Moments of a Noncentral  $\chi^2$  Random Variable: An Extension of the Benton and Krishnamoorthy Approach. XX Congresso da Sociedade Portuguesa de Estatística., [Ciência-IUL](#)

Nunes, J. & Prazeres, P. (2012). Pricing Swaptions under Multifactor Gaussian HJM Models. SIAM Conference on Financial Mathematics and Engineering., [Ciência-IUL](#)

Nunes, J. & Prazeres, P. (2012). Pricing Swaptions under Multifactor Gaussian HJM Models. Mathematical Finance Days 2012 Meeting., [Ciência-IUL](#)

Dias, J.C. & Nunes, J.P. (2012). The Valuation of Double Barrier Options under Multifactor Pricing Models. 7th International Conference of the Portuguese Finance Network., [Ciência-IUL](#)

Dias, J.C. & Nunes, J.P. (2012). The Valuation of Double Barrier Options under Multifactor Pricing Models. Mathematical Finance Days Conference., [Ciência-IUL](#)

Dias, J.C. & Nunes, J.P. (2011). The Valuation of Double Barrier Options under Multifactor Pricing Models. International Conference on Mathematical Finance and Economics., [Ciência-IUL](#)

Dias, J.C. & Nunes, J.P. (2011). Double Barrier Options Valuation under Multifactor Pricing Models. 21st Annual Derivatives Securities and Risk Management Conference., [Ciência-IUL](#)

Dias, J.C. & Nunes, J.P. (2010). Double Barrier Options Valuation under Multifactor Pricing Models. 6th World Congress of the Bachelier Finance Society., [Ciência-IUL](#)

Dias, J.C. & Nunes, J.P. (2008). Pricing Real Options under the CEV Diffusion. 12th International Conference on Real Options., [Ciência-IUL](#)

## Other Activities

### Academic Management Positions

Coordenador da unidade curricular Investimentos (2014/2014)

Subdirector do Departamento de Finanças (2014/2018)

Membro da Comissão Permanente da Comissão Científica do Departamento de Finanças (2014/2018)

Membro do Plenário da Comissão Científica da Escola de Gestão (2014/2018)

Coordenador da unidade curricular Opções Exóticas (2015/2015)

Coordenador da unidade curricular Inovação Financeira e Produtos Estruturados (2015/2015)

Coordenador da unidade curricular Gestão de Activos e Passivos (2015/2015)

Coordenador da unidade curricular Investimentos (2015/2015)

Coordenador da unidade curricular Modelos, Estrutura Temporal e Taxa de Juro (2015/2015)

Coordenador da unidade curricular Finanças em Tempo Contínuo (2015/2015)

Coordenador de ECTS do Departamento de Finanças (2015/2018)

Coordenador da unidade curricular Finanças em Tempo Contínuo (2016/2016)

Coordenador da unidade curricular Investimentos (2016/2016)

Coordenador da unidade curricular Modelos, Estrutura Temporal e Taxa de Juro (2016/2016)

Coordenador da unidade curricular Inovação Financeira e Produtos Estruturados (2016/2016)

Coordenador da unidade curricular Opções Exóticas (2016/2016)

Coordenador da unidade curricular Gestão de Activos e Passivos (2016/2016)

Coordenador da unidade curricular Investimentos (2017/2017)

Coordenador da unidade curricular Modelos, Estrutura Temporal e Taxa de Juro (2017/2017)

Coordenador da unidade curricular Finanças em Tempo Contínuo (2017/2017)

Coordenador da unidade curricular Investimentos (Mf) (2017/2017)

Coordenador da unidade curricular Fusões, Aquisições e Avaliação de Empresas (2017/2017)

Coordenador da unidade curricular Métodos Numéricos (2017/2017)

Coordenador da unidade curricular Mercados Financeiros (2017/2017)



Coordenador da unidade curricular Teoria da Medida (2017/2017)

Membro do Conselho Geral (2017/2021)

Coordenador da unidade curricular Investimentos (2017/2017)

Director do Mestrado em Matemática Financeira (ISCTE/FCUL) (2017/2019)

Coordenador da unidade curricular Opções Exóticas (2017/2017)

Coordenador da unidade curricular Modelos, Estrutura Temporal e Taxa de Juro (2018/2018)

Coordenador da unidade curricular Investimentos (2018/2018)

Coordenador da unidade curricular Investimentos (Mf) (2018/2018)

Coordenador da unidade curricular Finanças em Tempo Contínuo (2018/2018)

Coordenador da unidade curricular Cálculo Estocástico em Finanças I (2018/2018)

Coordenador da unidade curricular Equações com Derivados Parciais em Finanças (2018/2018)

Coordenador da unidade curricular Cálculo Estocástico em Finanças II (2018/2018)

Coordenador da unidade curricular Opções Exóticas (2018/2018)

Coordenador da unidade curricular Finanças da Empresa para Juristas (2018/2018)

Coordenador da unidade curricular Programação (2018/2018)

Coordenador da unidade curricular Investimentos (2018/2018)

Coordenador da unidade curricular Investimentos (2019/2019)

Coordenador da unidade curricular Opções Exóticas (2019/2019)