

# Europass Curriculum Vitae

### Personal information

First name(s) / Surname(s)

Patrícia Dinis Mota da Costa

Address(es)

Telephone(s)

E-mail

Nationality

Date of birth

Gender

**University Education** 

Dates | April 2011

Description | PhD in Industrial and Systems Engineering with the thesis entitled "Multidimensional Item Response

Models" (Psychometrics/Statistics area).

Name and address | University of Minho

Engineering School - Department of Production and Systems Engineering

Campus de Azurém

4800 - 058 Guimarães - Portugal

Type of business or sector + Public University

Dates January 2006

Description | Master Degree in Mathematics - Teaching with the thesis entitled "Item Response Models"

(Psychometrics/Statistics area).

Name and address University of Beira Interior – Department of Mathematics

Rua Marquês d'Ávila e Bolama 6201-001 Covilhã – Portugal

Type of business or sector | Public University

Dates | May 2001

Description | Degree in Mathematics - Educational Area

Name and address University of Coimbra - Faculty of Science and Technology

Department of Mathematics

Largo D. Dinis

3020-177 Coimbra - Portugal

Type of business or sector Public University

# **Publications**

# Scientific and Technical Reports

- Digital capacity building in VET using the SELFIE tool: cross-country validation (2022). Luxembourg: Publications Office. Cedefop working paper, No 15. Authors R. Hippe, A. Pokropek & P. Costa
- The likely impact of COVID-19 on education: Reflections based on the existing literature and recent international datasets (2020). Luxemburg: Publications Office of the European Union. Authors: Di Pietro, G., Biagi, F., Costa P., Karpiński Z., Mazza, J.
- Low achievers, teaching practices and learning environment (2018). Luxemburg: Publications Office of the European Union. Authors: A. Pokropek, P. Costa, S. Flisi, F. Biagi.
- Civic attitudes and behavioural intentions among 14-year-olds. How can education make difference towards a more democratic and cohesive Europe?. (2018) Luxemburg: Publications Office of the European Union. Authors: Zsuzsa Blasko, P. Costa & E. Vera-Toscano
- Civic attitudes and behavioural intentions in the 2016 International Civic and Citizenship Education Study (ICCS): New evidence for education and training policies in Europe . (2018). Luxemburg: Publications Office of the European Union. Authors: Zsuzsa Blasko, P. Costa & E. Vera-Toscano
- Quality of Teaching and Learning in Science (2018), Luxemburg: Publications Office of the European Union, Authors: P. Costa & L. Araújo.
- -Digital Reading in PISA 2012 and ICT Uses: How do VET and General Education Students Perform? (2016). Luxemburg: Publications Office of the European Union. Authors: P. Costa & L. Araújo, DOI: 10,2791/900596
- Equity in Education in Europe (2016), Luxemburg: Publications Office of the European Union, Authors: R. Hippe; L. Araújo & P. Costa. DOI: 10.2791/255948
- Teacher Costs (2015), Luxemburg: Publications Office of the European Union, Authors: P. Costa & L. Araújo, DOI: 10.2760/250728
- Learning Mobility (2015). Luxemburg: Publications Office of the European Union, Authors: S. Flisi, P. Costa & E. Soto Calvo. DOI: 10.2760/590538
- Languages and Employability (2015). Luxemburg: Publications Office of the European Union, Authors: L. Araújo; P. Costa; S. Flisi & E. Soto Calvo, DOI: 10.2788/860807
- Teaching Practices in Primary and Secondary Schools in Europe: Insights from Large-Scale Assessments in Education (2015), Publications Office of the European Union Luxemburg: Publications Office of the European Union, Authors: M. M. Isac; P. Costa; L. Araújo; E. Soto Calvo; P. Almeida. DOI: 10.2788/383588
- Education, Adult Skills and Social Outcomes: Empirical evidence from the Survey on Adult Skills (PIAAC 2013) (2014). Luxemburg: Publications Office of the European Union. Authors: P. Costa, P., M. Rodrigues, E. Vera-Toscano and A. Weber, A. DOI: 10:2788/66192
- The European Survey on Language Competences: School-internal and External Factors in Language Learning (2013). Luxemburg: Publications Office of the European Union, Authors: L. Araújo and P. Costa. DOI: 10.2788/92926
- Reading Literacy in EU Countries: Evidences from PIRLS (2013), Luxemburg: Publications Office of the European Union, Authors: P. Costa, P. Almeida and L. Araújo, DOI: 10.2788/40816
- Reading literacy in PIRLS 2006: What factors explain achievement in 20 EU countries? (2012). Luxemburg: Publications Office of the European Union. Authors: L. Araújo and P. Costa. DOI: 10.2788/40816
- Differential Item Functioning (DIF): What Functions Differently (EUR 25565 2012) Luxemburg: Publications Office of the European Union. Authors: P. Costa and L. Araújo. DOI: 10.2788/60811

# International peer-reviewed journals

- BLASKÓ, Z.; COSTA, P. & SCHNEPF, S. (2022). Learning losses and educational inequalities in Europe: Mapping the potential consequences of the COVID-19 crisis. Journal of European Social Policy. DOI: 10.1177/09589287221091687
- LOPES, J.; OLIVEIRA, C. & COSTA, P, (2022). School and student determinants of reading performance: A multilevel analysis with Portuguese students. *Revista de Psicodidáctica*. Available in English and Spanish at

https://www.sciencedirect.com/science/article/pii/S2530380521000149?dgcid=author.

- COSTA, P.; CASTANO-MUNOZ, J. KAMPYLIS, P. (2021). Capturing schools' digital capacity: psychometric analyses of the SELFIE self-reflection tool. *Computers & Education*. Volume 162. DOI: /10.1016/j.compedu.2020.104080.
- CASTANO-MUNOZ, J.; VUORIKARI, R.; COSTA, P.; HIPPE, R. & KAMPYLIS, P. (2021). Teacher collaboration and students' digital competence evidence from the SELFIE tool. *European Journal of Teacher Education*, pp. 1-22. DOI: /10.1080/02619768.2021.1938535.
- LOPES, J.; OLIVEIRA, C. & COSTA, P. (2021). School and student determinants of reading performance: A multilevel analysis with Portuguese students". *Revista de Psicodidáctica*. Available at: https://www.sciencedirect.com/science/article/pii/S2530380521000149?dgcid=author.
- COUTO, A.; COSTA, P. & FERRÃO, M. E., (2021). Territorial differences in educational performance: A Portuguese case study. *Revista Portuguesa de Estudos Regionais*, nº 57.pp. 89-103.
- BLASKO, Z., COSTA, P. & VERA-TOSCANO, E. (2019). Non-cognitive civic outcomes: how can education contribute? European evidence from the ICCS 2016 study, *International Journal of Educational Research*, Volume 98,pp. 366-378. DOI: 10.1016/j.ijer.2019.07.005
- LOPES, P., COSTA, P., ARAUJO, L. & AVILA, P. (2018). Measuring media and information literacy skills: Construction of a test. Communications, *The European Journal of Communications Research*, 43, 4, pp. 508-534. DOI: 10.1515/commun-2017-0051
- CASTANO-MUNOZ, J.; COSTA, P.; HIPPE, R. & KAMPYLIS, P. (2018). Within-school differences in the views on the use of digital technologies in Europe: Evidence from the SELFIE tool. In L. Gómez Chova, A. López Martínez, & I. Candel Torres (Eds.), Proceedings of the 10th International Conference on Education and New Learning Technologies (pp. 10417-10426). Palma, Mallorca, Spain: IATED.
- COSTA, P. & ARAÚJO, L. (2017). Skilled Students and Effective Schools: Reading Achievement in Denmark, Sweden and France. Scandinavian Journal of Educational Research. 62:6, pp. 850-864. DOI: 10.1080/00313831.2017.1307274
- FERRÃO, M. E.; COSTA & P.; MATOS, D. (2017). The relevance of the school socioeconomic composition and school proportion of repeaters on grade repetition in Brazil: a multilevel logistic model of PISA 2012. *Large-scale Assessments in Education* 5(1). DOI: 10.1186/s40536-017-0036-8
- VERA-TOSCANO, M. E.; RODRIGUES, M & COSTA, P. (2017). Beyond educational attainment: the importance of skills and lifelong learning for social outcomes: Evidence for Europe from PIAAC. *European Journal of Education*, 52:217–231. DOI: 10.1111/ejed.12211
- COSTA, P.& FERRÃO, M. E. (2015). On the complementarity of classical test theory and item response models: item difficulty estimates and computerized adaptive testing. *Ensaio Avaliação e Políticas Públicas em Educação*. DOI: 10.1590/S0104-40362015000300003
- ARAÚJO, L. & COSTA, P. (2015). Home book reading and reading achievement in EU countries: the Progress in International Reading Literacy Study 2011 (PIRLS). *Educational Research and Evaluation: from Theory to Practice*. DOI: 10.1080/13803611.2015.1111803.
- MERONI, E.C., VERA-TOSCANO, &., COSTA, P. (2015) Can low skill teachers make good students? Empirical evidence from PIAAC and PISA, *Journal of Policy Modeling* DOI:10.1016/j.jpolmod.2015.02.006

-FERRÃO, M. E.; COSTA, P.& OLIVEIRA, P. (2015). Generalized Partial Credit Item Response Model: Linking scales in the assessment of learning. *Journal of Interdisciplinary Mathematics*. DOI: 10.1080/09720502.2014.932119

- FERRÃO, M. E., GAMA J. M. & COSTA, P. (2010). Distribution-free Item Response Model based on Marginal Maximum Likelihood Estimation. *Advances and Applications in Statistics*, 18, n. 2, 109-126.

### **Thesis**

- COSTA, P. (2011). Multidimensional Item Response Models. PhD degree. University of Minho (in Portuguese).
- COSTA, P. (2006). Item Response Models. Master Degree. University of Beira Interior (in Portuguese).

## **Books chapters**

ARAÚJO, L. & COSTA, P. (forthcoming). Literacy Development in Europe. In Ken Pugh, Charles Perfetti, Sonali Nag & Ludo Verhoeven, (Eds.), Global variation in literacy development. Cambridge University Press.

ARAÚJO, L., COSTA, P. & CRATO, N. (2020). Assessment Background: What PISA Measures and How. In Nuno Crato (Ed), Improving a Country's Education - PISA 2018 Results in 10 Countries. Springer.

COSTA, P. & ARAÚJO, L. (2018). Avaliação da Leitura na Europa. In Machado Soares, T. & Bonamino, A. (Eds.), Estudos sobre a Educação Brasileira: Múltiplos olhares. Rio de Janeiro: PUC-Rio. Disponível em: http://www.editora.vrc.puc-rio.br/media/miolo%20estudos%20sobre%20educação.pdf

ARAÚJO, L. & COSTA, P. (2016). Avaliação da Leitura: PIRLS 2011 [Assessing Reading: PIRLS 2011]. In Fernando Azevedo & Ângela Balça (Eds.), Leitura e Educação Literária [Reading and Literature Education]. Lisboa: LIDEL Publicações.

- Publications in proceedings COSTA, P.; ALMEIDA, P. (2015). The European Survey on Language Competences: measuring foreign language students' proficiency". Procedia Social and Behavioral Sciences. V. 191, 2369-2373.
  - ALMEIDA, P. & COSTA, P. (2014). Foreign Language Acquisition: The Role of Subtitling. Procedia Social and Behavioral Sciences, V. 141, 1234-1238.
  - COSTA, P., SOARES, T., FERRÃO, M. E. and OLIVEIRA, P. (2010). Multidimensional model of item response: bayesian estimation and MCMC (In Portuguese). National Symposium of Probability and Statistics - SINAPE. São-Pedro, Brazil. Proceedings 19th SINAPE.
  - COSTA, P., SOARES, T., FERRÃO, M. E. and OLIVEIRA, P. (2010). Bayesian estimation and MCMC in a multidimensional model of IRT (In Portuguese). XLII Brazilian Symposium on Operational Research. Bento Gonçalves, Brazil. Proceedings SBPO XLII. Rio de Janeiro: SOBRAPO.
  - COSTA, P., SOARES, T., FERRÃO, M. E. and OLIVEIRA, P. (2010). Multidimensional model of item response: bayesian estimation and MCMC (In Portuguese). National Symposium of Probability and Statistics - SINAPE. São-Pedro, Brazil. Proceedings 19th SINAPE.
  - COSTA, P., SOARES, T., FERRÃO, M. E. and OLIVEIRA, P. (2010). Bayesian estimation and MCMC in a multidimensional model of IRT (In Portuguese). XLII Brazilian Symposium on Operational Research. Bento Gonçalves, Brazil. Proceedings SBPO XLII. Rio de Janeiro: SOBRAPO.
  - COSTA, P. OLIVEIRA, P. N. and FERRÃO, M. E. (2009). Statistical Issues on Multiple Choice Tests in Engineering Assessment. In Bogaard, Maartie van den; Graaff, Eric and Saunders-Smith, Gillian (eds). Proceedings of the 37th conference Sefi. Rotterdam, Delft University of Technology.
  - COSTA, P., FERRÃO M. E., FERNANDES., N. and SOARES, T. (2009). An application of factor analysis in detecting cognitive dimensions of evaluation tests on a large scale in Portugal. XLI Brazilian Symposium on Operational Research - Operational Research in the Management of Knowledge. Porto Seguro, Proceedings SBPO XLI. Rio de Janeiro: SOBRAPO, v.1, 391-402. (In Portuguese)
  - -FERRÃO M. E., COSTA P., NAVIO V. M. and DIAS, V. M. (2006). Measuring the competence of elementary school students in Mathematics: 3EMAT a proposal. Proceedings of the XI International Conference on Psychological Assessment: Methods and Contexts, 905-915. University of Minho. (In Portuguese).

# Other publications

- COSTA, P., LOURA, L. & MARÔCO, J (2020). TIMSS 2019: Os resultados nacionais do 4.º ano. [TIMSS] 2019: The national results of the 4th grade] Available at: https://www.iniciativaeducacao.org/pt/ed-on/edon-estatisticas/timss-2019-os-resultados-nacionais (in Portuguese).
- COSTA, P., OLIVEIRA, P. & FERRÃO, M. E. (2009). Continuous assessment and tests with multiple choice - a few considerations. Bulletin of the Portuguese Society of Statistics - Spring 2009 (Rosado, F., Ed), 86-90. Issues SPE.
- Collaboration in the production of the reports: "Assessment tests in Mathematics, Portuguese of 4th and 6th grades" and "Tests 3EMat and evidence of measurement - linking between performance scales, considering the subject of Mathematics in the 6th grade in academic year 2006/ 20077 ", under the project Quality Improvement of Instruments and Scales Measuring Results, developed in partnership of the Office of Educational Assessment (GAVE) of the Portuguese Ministry of Education with the University of Beira Interior.

# Work experience

Dates

Occupation or position held

Main activities and

responsibilities

Since February 2022

University teacher at Instituto Superior de Educação e Ciências - ISEC Lisboa;

- Adjunct Professor of Mathematics, Statistics and Research
- Disciplines: Teacher of Mathematics 2, Probabilities and Statistics, Mathematical Game, Geometry, Fundamentals of Mathematics, and Introduction to Research in Educational Contexts;

Dates

Occupation or position held

Since July 2020

Researcher at CEMAPRE - Centre for Research in Mathematics Applied to Forecasting and Decision Making in Economics - at the University of Lisbon, Portugal

- responsibilities
- Researcher in the area of applied statistics and psychometrics in topics related to education;
- External expert for the Joint Research Centre of the European Commission;
- Organization of sixth Lisbon Economics and Statistics of Education LESE 2022 workshop;
- Collaboration in the statistics group of Education Initiative ("Iniciativa Educação" in Portuguese) from the Teresa and Alexandre Soares dos Santos foundation.

### Dates

## Occupation or position held

From July 2014 to June 2020

Scientific / Technical Support Officer in CRELL - Centre for Research on Education and Lifelong Learning - Unit of Econometrics and Applied Statistics and Human Capital and Employment Unit - Joint Research Centre at European Commission

- Main activities and responsibilities Researcher in the areas of Psychometrics, Applied Statistics, Educational Assessment and Comparative Education:
  - Analyzing data of international large scale surveys such as Programme for International Student Assessment (PISA), Progress in International Reading Literacy Study (PIRLS), Trends In International Mathematics and Science Study (TIMSS), International Civic and Citizenship Education Study (ICCS), Adult Education Survey (AES).
  - Secondary data analysis of international large scales surveys in order to the identification of variables related to policy relevant issues:
  - Use of statistical procedures for the validation of several questionnaires applied in several European countries (e.g. validation of the SELFIE tool for schools - at the moment with 4000000 users, Checkln tool and ENTRECOMPYouth SAT);
  - Creation of questionnaires based on theoretical references and respective technical support;
  - Creation and organization of databases;
  - Analyzing data from instruments based in digital competence frameworks;
  - Handling of Eurostat and Eurydice databases and simultaneous use of data from different sources (e.g. OECD, IEA, World bank) in order to produce indicators and statistical results;
  - Researcher responsible for projects including statistical analysis and technical reports (which compare European countries);
  - Preparation and publishing of Scientific and Technical Reports published by the Joint Research Centre from the European Commission (some of the topics are: digital reading, teaching practices, students skills, immigrants vs natives skills, inequalities, learning, civic attitudes and behavioural intentions, foreign languages, teachers costs) that aim to analyze quantitatively and interpret statistical data from international databases;

# Dates

From June 2011 to May 2014

# Occupation or position

Grantholder 30 (Researcher) in CRELL - Centre for Research on Education and Lifelong Learning -Unit of Econometrics and Applied Statistics - Joint Research Centre at European Commission

# Main activities and responsibilities

My working activities included:

- Researcher in the areas of Psychometrics and Applied Statistics;
- Analyzing data of international large scale surveys: Programme for International Student Assessment (PISA), Progress in International Reading Literacy Study (PIRLS), Teaching and Learning International Survey (TALIS), Programme for the International Assessment of Adult Competencies (PIAAC) and European Survey on Language Competences (ESLC);
- Support DG Education and Culture (EAC): reviewing documents; preparing briefs related with skills and commenting on preliminary data analysis documents; running univariate and multivariate statistical analysis of the large scale assessment data.
- Participation in the expert group of the European Indicator on Languages Competences;
- Member of Advisory Board for Language Competence of the (ESLC) and EILC followed work developed by the external tender SurveyLang and attended meetings in Brussels.
- Contribution to the establishment of benchmarks for educational and social development;
- Statistical analysis of data using different sources such as Eurostat data, IEA data, OECD data, Eurvdice data.
- Preparation and publication of JRC scientific and technical reports and other relevant documents;
- Analyzing items of the TALIS survey:
- Preparation of press releases

- Provide statistical information and analysis that is useful for policy makers;
- Participation in technical meetings and collaboration with people from other European/international organizations and national representatives.
- Presenting results in international conferences;
- Secondary data analysis of international large scales surveys in order to the identification of variables related to policy relevant issues;
- Secondary analysis of ESLC in order to identify factors associated with learning inside and outside school that impact students' foreign language achievement in Reading, Writing and Listening skills;
- Managed the construction of a website and collaboration with IT experts in order to the ESLC database to be released on the CRELL website; It included the organization of the databases to be hosted on the website and the participation in the design and the implementation of the website.
- Research in the area of foreign language skills and literacy in Reading, Literacy, Mathematics and Numeracy;
- Investigate the relationship between students reading achievement and other variables using Multilevel statistical models;
- Analyze the the behaviour of items in different subgroups (immigrant vs natives), using Differential Item Functioning (DIF) statistical method for PISA 2009 reading items.
- Contribution to Policy documents/reports: Education and Training Monitor 2013 and 2014;
- Organization of the Second Lisbon Research Workshop on Economics, Statistics and Econometrics of Education.

Name and address of employer

European Commission-Joint Research Centre

Institute for the Protection and Security of the Citizen (IPSC)

CRELL - Center for Research on Lifelong Learning Unit of Econometrics and Applied Statistics,

TP 361, 21027 ISPRA(VA), ITALY

Dates

From September 2010 to January 2011

Occupation or position held

Teacher (University level)

Main activities and responsibilities

Mathematics Teacher of the Degree in Primary Education;

Name and address of employer

Instituto Superior de Educação e Ciências - ISEC

Alameda Linhas de Torres

1750-142 Lisboa – Portugal

Type of business or sector

Occupation or position held

**Private University** 

Dates

From February 2010 to March 2011

Name and address of employer

Teacher (University level)

Main activities and responsibilities

Mathematics Teacher of the Integrated Master Degree of Architecture;

Statistics teacher of the Integrated Master Degree of Veterinary Medicine (practical classes); University School Vasco da Gama

Mosteiro S. George of Milreu

Estrada da Conraria

3040-714 Castelo Viegas - Coimbra - Portugal

Type of business or sector

Private University

Dates

In October and November 2010

Occupation or position held

Trainer of teachers

Main activities and responsibilities

Trainer of the training event entitled "Computer applications in Probability and Statistics" of the Portuguese Society of Mathematics (SPM)

Name and address of employer

Sociedade Portuguesa de Matemática (spm)

Av. da República,45, 3º esq. 1050-187 - Lisboa, Portugal

Type of business or sector

Private Training Centre

Dates

Between December 2007 and April 2011

Occupation or position held

Researcher

Main activities and responsibilities

As PhD student developed several works/ statistical models related with Multidimensional Item Response Theory Models

Name and address of employer

ALGORIMI Research Center – University of Minho - Engineering School Campus Azurém, 4800-058 Guimarães, PORTUGAL

Type of business or sector

**Public University** 

Dates

Between May 2007 and December, 2009

Occupation or position held

Main activities and responsibilities

Researcher at the Laboratory of Applied and Computational Statistics

- Study of statistical properties of instruments for measuring educational assessment using two approaches: Classical Test Theory and Item Response Theory;
- Analysis of the quality of items and select items using several statistical procedures;
- Construction of cognitive scales;
- Exploration of dichotomous, polytomous and multiple groups item response models;
- Calibration of items (estimation item parameters) using item response theory;
- Creating item banks to measure educational outcomes;
- Using and applying goodness of fit tests;
- Comparison of school results by using equating and linking statistical procedures for data processing, through the use of dichotomous item response models;
- Analysis of the dimensionality of measuring instruments;
- Using the SPSS software for data analysis;
- Using specific software for data analysis through the use of several models of item response theory, namely: Bilog-MG, Testfact, Parscale;
- Programming in R language unidimensional item response models;
- Programming in Matlab multidimensional item response models;
- Using Bayesian estimation procedures, including procedures for Markov Chain Monte Carlo simulation for the estimation of multidimensional item response models (implementation in Matlab);
- Exploration of multidimensional compensatory and non compensatory item response models;
- Analysis of dimensionality of the tests using factor analysis and full information;
- Modelling multilevel models.

Name and address of employer

University of Beira Interior Department of Mathematics

Laboratory of Applied and Computational Statistics

Rua Marquês d'Ávila e Bolama 6201-001 Covilhã – Portugal

Type of business or sector

**Public University** 

Dates

Between March 9th and June 4th, 2009

Occupation or position held

Researcher

Main activities and responsibilities

Traineeship integrated in a research project to develop new methods related with Item Response Theory, supervised by Professor Tufi Machado Soares.

Name and address of employer

Federal University of Juiz de Fora Instituto de Ciências Exactas Department of Statistics Campus Universitário – Martelos Juiz de Fora MG – CEP 36036-330 Brazil

Type of business or sector

**Public University** 

Dates

From 2005 until 2007

Occupation or position held

Main activities and responsibilities

Researcher at the Laboratory of Applied and Computational Statistics

- Construction of questionnaires and cognitive tests:
- Construction and management of databases;
- Analysis of data using Item Response Theory;
- Constructing of skills/proficiency scales;
- Using software Bilog-Mg;
- Calibration of items (estimate item parameters);
- Analysis and selection of items;
- Construction of Item Banks:
- Programming in R language an algorithm for calibrating items using two parameter logistic item response model, with the senior researcher Philip Fletcher;
- Production of technical reports for the research project entitled School Effectiveness in Mathematics Teaching (3EM).

Name and address of employer

University of Beira Interior Department of Mathematics

Laboratory of applied and computational statistics

Rua Marquês d'Ávila e Bolama 6201-001 Covilhã – Portugal

Type of business or sector

**Public University** 

Dates

From 2001 until 2007

Occupation or position held

Teacher

Main activities and responsibilities

Mathematics teacher (secondary level)

Name and address of employer

Profiacademus – Professional School of Santa Comba Dão

Rua José Maria de Matos - Apartado 33 3440-382 Santa Comba Dão — Portugal

Type of business or sector

Public School

# Courses/Training

- Leadership and Teamwork, February 2022, Viseu Portugal
- Emotional Intelligence, November 2021, Viseu Portugal
- Access database, October 2020, Viseu, Portugal
- Summer Week on Conterfactual Impact Evaluation (CIE), June 2019, Ispra Italy.
- EENEE/NESET conference Socially inclusive education: better connecting research to policy and practice, November 2016, Brussels, Belgium.
- Data Linkage: From Theory to Practice, November 2015, Ispra Italy.
- 12th JRC Annual Training on Composite Indicators and Multicriteria Decision Analysis held by the COIN group, in September 2014, Ispra Italy.
- Effective scientific and technical writing, September 2014, held in Ispra Italy.
- Using Mplus for Structural Equation Modelling, Latent Growth Curve Modelling and Testing Indirect Effects" held in Ispra Italy in October 2014 and offered by Chris Stride from Sheffield University.
- Workshop on using PISA, PIAAC, TIMSS & PIRLS, TALIS datasets, held by IEA, in June 24-27, 2014, Ispra, Italy.
- Using International large-scale Assessment Databases From 6th until 8th of May 2014 IEA DPC, Hamburg, Germany.
- Impact Assessment Course 9th and 10th of December 2013 Joint Research Centre, Ispra, Italy
- Hierarchical Linear Modeling with TIMSS and PIRLS workshop From 25th until 29th of November 2013 IEA DPC, Hamburg, Germany.
- Team Coaching-Improving Skills And Communication February 2012 Joint Research Centre, Ispra. Italy.

# Computer skills and competences

- SPSS software, STATA, MLWIN, HLM, MPLUS
- BILOG-MG, TESTFACT and PARSCALE;
- Programming in R, MATLAB and PASCAL languages;
- Text Editor LATEX;
- Knowledge of a user's perspective: Windows, Word, Excel, PowerPoint and Internet;
- Educational Applications for Mathematics teaching;
- Graphing calculator and associated software: CBL and CBR.

## Referee

- Reviewed articles in peer reviewed journals (e.g. European Journal of Engineering Education, Computers and Education, Nordic Journal of Digital Literacy and European Journal of Education, among others)
- Reviewer of books (e.g. from Springer entitled Improving a Country's Education PISA 2018 Results in 10 Countries)
- Reviewed articles for a Special Issue of the Journal "Ensaio: Avaliação e Políticas Públicas em Educação" entitled Métodos Estatísticos na Nova Era da Avaliação Educacional.

# Social skills and competences

- Good ability to establish and maintain good working relations with people of different national and cultural backgrounds;
- Good ability to adapt to multicultural environments, gained through my work experience abroad;
- Teamwork skills gained through my job experiences and through 8 years volunteering work as a firefighter.

# Organisational skills and competences

- Organization of the Fifth Lisbon Research Workshop on Economics, Statistics and Econometrics of Education (https://rem.rc.iseg.ulisboa.pt/lese/5e3/)
- Organization of the Fourth Lisbon Research Workshop on Economics, Statistics and Econometrics of Education (http://cemapre.iseg.ulisboa.pt/educonf/4e3/).
- Organization of the Third Lisbon Research Workshop on Economics, Statistics and Econometrics of Education (http://cemapre.iseg.ulisboa.pt/educonf/3e3/).
- Organization of the Second Lisbon Research Workshop on Economics, Statistics and Econometrics of Education. (http://cemapre.iseg.utl.pt/educonf/2e3/index.php).
- Between 2007 and 2009 I prepared the application for funding of research projects submitted to Fundação para a Ciência e Tecnologia of the Portuguese Ministry of Education;
- In the academic years 2004/2005, 2005/2006 and 2006/2007: organization of the "Maths Kangaroo" at Profiacademus Professional School of Santa Comba Dão Portugal;
- In the academic years 2005/2006 and 2006/2007: organization of the "Problem of the Month for Mathematics" in Profiacademus Professional School of Santa Comba Dão (Portugal).

# Other skills and competencies

- Member of the Scientific Committee of the Lisbon Research Workshop on Economics, Statistics and Econometrics of Education.
- Volunteer Firefighter in Santa Comba Dão Portugal, from 1998 until 2011 with knowledge in several areas, particularly in pre-hospitalar emergency (has a First Aid Basic Course).
- Driving licence: owner of the driving licence for automobile vehicles with total weight below 3500 kg (Categories B).

## Other information

Member of the International Statistical Institute (ISI): 99114

CIÊNCIA ID: EE14-EF9B-8D10 ORCID: 0000-0002-2943-4270

