Curriculum Vitæ

Maria Manuela Fernandes Rodrigues

1 Education

- Graduate Diploma in Mathematics, University of Coimbra.
- Master degree in Mathematics (Positive Semidefinite Programming), University of Lisboa.
- PhD - Doctor in Mathematics, University of Aveiro.
- Post-Doctoral (Operational methods for solving fractional partial differential equations - FCT - Post-Doctoral fellowship: SFRH/BPD/73537/2010), University of Porto.

2 Position

Assistant Professor, Department of Mathematics, University of Aveiro.

3 Research center

Center for Research & Development in Mathematics and Applications (CIDMA), Department of Mathematics, University of Aveiro

4 Research Projects

- Member of the Research Team of the Project *New Function Theoretic Methods in Computational Electrodynamics*, funded by Programme for Cooperation in Science between Portugal and Germany ("Programa de Açõ̃es Integradas Luso-Alemãs/2017") via FCT, Ref: 57340281, (01/01/2017 - 31/12/2018).
- Member of the Research Team of the Exploratory Research Project *Human Cornea Tomography by Fractional Non-Commutative Harmonic Analysis*, Ref: IF/00271/2014/CP1222/CT0008, (01/05/2015 - 30/04/2020).

5 Research Interest Areas

- Fractional calculus.
- Mathematical modeling.
- Integral equations.
- Integral transforms.
- Special functions.
- Partial differential equations.

6 Publications

6.1 Papers in Internationals Journals with Referees

- M. Ferreira, M.M. Rodrigues, N. Vieira, *A Time-Fractional Borel-Pompeiu Formula and a Related Hypercomplex Operator Calculus*, Complex Anal. Oper. Theory, 13(6), (2019), 2495–2526.

- M.M. Rodrigues, A. Rosa, N. Vieira and J. N. Murta, *Modeling ophthalmic surfaces using Zernike, Bessel and Chebyshev type functions*, J. Phys.: Conf. Ser. 012093, 1194 (1), (2019), 1–8.

- M.M. Rodrigues and N. Vieira, *The orthogonality of the fractional circle polynomials and its application in modeling of ophthalmic surfaces*, J. Phys.: Conf. Ser. 012094, 1194 (1), (2019), 1–9.

- M. Ferreira, R. R. Krausshar, M. M. Rodrigues and N. Vieira, *A higher dimensional fractional Borel-Pompeiu formula and a related hypercomplex fractional operator calculus*, Math. Meth. Appl. Sci., (2019), 1–21.

- M. Ferreira, M.M. Rodrigues, N. Vieira, *First and Second Fundamental Solutions of the Time-Fractional Telegraph Equation with Laplace or Dirac Operators*, Advances in Applied Clifford Algebras, 28(2):42, (2018), 1–14.

- N. J. Ford, H. Moayyed and M. M. Rodrigues, *Orthogonality for a class of generalised Jacobi polynomial $P_{\mu}^{\alpha,\beta}(x)$*, Fracttional Differ. Calc., 8(1), (2018), 95–110.

- V. N. Huy and M. M. Rodrigues and N. M. Tuan, *Norm estimates and uncertainty principles associated with the Laguerre integral transform*, Complex Anal. Oper. Theory, 12(3), (2018), 683–704.

- M. Ferreira, M. M. Rodrigues and N. Veira, *Fundamental solution of the time-fractional telegraph Dirac operator*, Math. Meth. Appl. Sci., 40, (2017), 7033–7050.

- M. Ferreira, M. M. Rodrigues and N. Veira, *Fundamental solution of the multi-dimensional time fractional telegraph equation*, Fractional Calculus and Applied Analysis, 20(4), (2017), 868–894.

- Y. Luchko and M. M. Rodrigues, *Some New Properties and applications of a Fractional Fourier Transform*, Journal of Inequalities and Special Functions, 8(1), (2017), 13–27.

- R. Krausshar, M.M. Rodrigues and N. Vieira, *Maximum principle and parabolic inequalities for the regularized Schrödinger operator on open manifolds*, Results in Mathematics, **69**(1), (2016), 49–68.

- R. Krausshar, M.M. Rodrigues and N. Vieira, *Time-dependent operators on some non-orientable projective orbifolds*, Mathematical Methods in the Applied Sciences, 38(18), (2015), 5305–5319.

- M.M.Rodrigues and N. Vieira, *Whittaker transform on distributions*, Indian Journal of Pure and Applied Mathematics, **46**(2), (2015), 229–237.

- L.P. Castro, M.M. Rodrigues and S. Saitoh, *A fundamental theorem on initial value problems by using the theory of reproducing kernels*, Complex Analysis and Operator Theory, **9**(1), (2015), 87–98.

- R. Krausshar, M.M. Rodrigues and N. Vieira, *Time-dependent operators on some non-orientable projective orbifolds*, Mathematical Methods in the Applied Sciences, **38**(18), (2015), 5305–5319.

- P. Cerejeiras, U. Kähler, M.M. Rodrigues and N. Vieira, *Hodge type decomposition in variable exponent spaces for the time-dependent operators: the Schrödinger case*, Communications on Pure and Applied Analysis, **13**(6), (2014), 2253–2272.

- R. Krausshar, M.M. Rodrigues and N. Vieira, *Hodge decomposition and solution formulas for some first order time dependent parabolic operators with non-constant coefficients*, Annali di Matematica Pura ed Applicata, **193**(6), (2014), 1807–1821.

- R. Krausshar, M.M. Rodrigues and N. Vieira, *The Schrödinger semigroup on some flat and non flat manifolds*, Complex Analysis and Operator Theory, **8**(2), (2014), 461–484.

- R. Krausshar, M.M. Rodrigues and N. Vieira, *Hodge type decomposition for time dependent first order parabolic operators with non-constant coefficients: the variable exponent case*, Milan Journal of Mathematics, **82**, (2014), 407–422.

- H. Fujiwara, M.M. Rodrigues, S. Saitoh and V.K. Tuan, *A new discretization principle in analysis*, International Journal of Mathematics and Computation, **22**(1), (2014), 75–88.

- L.P. Castro and M.M. Rodrigues, *The Weierstrass-Whittaker integral transform*, Memoirs on Differential Equations and Mathematical Physics, **60**, (2013), 57–72.

- N.J. Ford, M.M. Rodrigues and N. Vieira, *A numerical method for the fractional Schrödinger equation of spatial dimention two*, Fractional Calculus and Applied Analysis, **16**(2), (2013), 454–468.

- N.J. Ford, M.M. Rodrigues, J. Xiao and Y. Yan, *Numerical analysis of a two-parameter fractional telegraph equation*, Journal of Computational and Applied Mathematics, **249**, (2013), 95–106.

- M.M.Rodrigues and N. Vieira, *On Fractional Whittaker Equation and Operational Calculus*, Journal of Mathematical Sciences University of Tokyo, **20**(1), (2013), 127–146.

- M.M. Rodrigues and S. Yakubovich, *On a heat kernel for the index Whittaker transform*, Carpathian Journal of Mathematics, **29**(2), (2013), 231–238.

- M.M.Rodrigues, N.Vieira and S.Yakubovich, *A convolution operator related to the generalized Mehler-Fock and Kontorovich Lebedev transforms*, Results in Mathematics, **63**(1), (2013), 511–528.

- S. Yakubovich and M. M. Rodrigues, *Fundamental solutions of the fractional two-parameter telegraph equation*, Integral Transforms and Special Functions, **23**(7), (2012) 509–519.

- M. M. Rodrigues, *Multiplicity of solutions on a nonlinear eigenvalue problems for p(x)-Laplacian-like operators*, Mediterranean Journal of Mathematics, **9**(1), (2012) 215–227.

- M. M. Rodrigues, *Lyapunov inequalities for nonlinear p-Laplacian problems with weight functions*, International Journal of Mathematical Analysis, **5**(30), (2011) 1497–1506.

- M. M. Rodrigues, *Analysis of Adomian series solution to a class of nonlinear ordinary system of Raman type*, Applied Mathematics E-Notes, **11**, (2011) 50–60.

- M.M. Rodrigues and E.M. Rocha, *The convergence analysis of the decomposition method for the (1+1)-parabolic problem in nonuniform media*, Acta Applicanda Mathematicae, **112**(3), (2010) 299–308.

- E.M. Rocha and M.M. Rodrigues, *On approximate solutions to the wavefront speed of reaction-diffusion-convection problem in nonuniform media*, Asymptotic Analysis, **66**(1), (2010) 51–59.

- M. M. Rodrigues, *Singular perturbation analysis for convection-diffusion-reaction fronts in nonuniform media*, International Journal of Computer Mathematics, **85**(3), (2008) 613–622.

6.2 Papers in Proceedings with Referees

- M. Ferreira, R. Krausshar, M.M. Rodrigues, N. Vieira, *Application of the hypercomplex fractional integro-differential operators to the fractional Stokes equation*, AIP Proceedings, 2116, 160004, 2019.

- M. Ferreira, M.M. Rodrigues and N. Vieira, *First and Second Fundamental Solutions of the Time-Fractional Telegraph Equation of Order* 2α, American Institute of Physics, AIP Proceedings, 2046, 020079, 2018.

- M. M. Rodrigues, V. N. Huy and N. M. Tuan, *Some operational properties of the Laguerre transform* American Institute of Physics, AIP Proceedings, 1798(1), 020130, 10 pp, NY, 2017.

- L.P. Castro, M.M. Rodrigues and S. Saitoh, *A Bessel differential heat initial value problem in a reproducing kernel Hilbert space framework*, American Institute of Physics, AIP - Conf. Proc, **1637**, (2014), 165–170.

- M.M. Rodrigues, *Some properties of generalized fractional integral with Lengendre functions kernel's*, American Institute of Physics, AIP - Conf. Proc, **1637**, (2014), 882–888.

- M.M. Rodrigues and N. Vieira, *An operational method to solve fractional differential equations*, American Institute of Physics, AIP - Conf. Proc, **1637**, (2014), 1143–1152.

- M.M.Rodrigues, *Generalized fractional integral transform with Whittaker kernel*, American Institute of Physics, AIP - Conf. Proc, **1561**, (2013), 196–200.

- M.M. Rodrigues and N. Vieira, *Multidimensional fractional Schrödinger equation*, American Institute of Physics, AIP - Conf. Proc. **1493**, (2012), 798–804.

- M. M. Rodrigues, *Study of Solutions of a Nonlinear Fractional Partial Differential Equation*, Proceedings of the World Congress on Engineering 2011, **1**, (2011) 186–190.

- E.M. Rocha and M.M. Rodrigues, *Exact and approximate solutions of reaction-diffusion-convection equations*, American Institute of Physics, AIP - Conf. Proc., **1124**, (2009) 304–313.

- B. Neto, M.M. Rodrigues, E.M.Rocha, and P.S. André, *Stability analysis of Raman propagation equations of three and higher dimensions, Stability analysis of Raman propagation equations*, IEEE - Conf. Proc. (ICTON '09, Ponta Delgada - Açores), (2009) 1–4.

- E.M. Rocha and M.M. Rodrigues, *The Speed of Reaction-Diffusion-Convection wavefronts in Nonuniform Media*, American Institute of Physics, AIP - Conf. Proc., **936**, (2007) 666–669.

6.3 Chapter Books

- M. M Rodrigues and N. Vieira, Some properties of the fractional circle Zernike polynomials, C. Constanda, M. Dalla Riva, P.D. Lamberti, P. Musolino, Integral Methods in Science and Engineering, 265–276, Birkhäuser/ Springer International Publishing, Basel, 2017.

- L.P. Castro, H. Fujiwara, M.M. Rodrigues, S. Saitoh and V. Tuan, *Reproducing kernels and discretization*, V. Mityushev, M.V. Ruzhansky (edts.), Current Trends in Analysis and Its Applications, 553–559, Springer / Birkhäuser, Basel, 2015.

- M.M. Rodrigues and S. Saitoh, *Whittaker Differential Equation Associated to the Initial Heat Problem*, V. Mityushev, M.V. Ruzhansky (edts.), Current Trends in Analysis and Its Applications, 523–530, Springer/Birkhäuser, Basel, 2015.

- L.P. Castro, H. Fujiwara, M.M. Rodrigues, S. Saitoh and V.K. Tuan, *Aveiro Discretization Method in Mathematics: A New Discretization Principle*, Panos Pardalos and Themistocles M. Rassias (edts), Mathematics without Boundaries: Surveys in Pure Mathematics, 37–92, Springer-Verlag, New York, 2014.

- L.P. Castro, M.M. Rodrigues and S. Saitoh, *Initial Value Problems in Linear Integral Operator Equations*, Themistocles M. Rassias and Laszlo Toth (edts.), Topics in Mathematical Analysis and Applications, 175–188, Springer Optimization and Its Applications 94, Springer-Verlag, New York, 2014.

- M.M.Rodrigues, N. Vieira and S. Yakubovich, *Operational calculus for Bessel's fractional equation*, A. Almeida, L.Castro and F. Speck (edts.), Advances in Harmonic Analysis and Operator Theory – The Stefan Samko Anniversary Volume, 357–370, Birkhäuser, Basel, 2013.

- L.P. Castro, H. Fujiwara, M.M. Rodrigues and S. Saitoh, *A new discretization method by means of reproducing kernels*, L.H. Son, W. Tutschke (edts), Interactions between Real and Complex Analysis, 185–223, Science and Technics Publishing House, ISBN: 978-604-67-0032-6, Ministry for Science and Technology of Vietnam, Ha Noi, 2012.

7 Talks

7.1 Talks: International Conferences

- M.M. Rodrigues, *Fundamental solutions of a fractional equation*, 18 - 23 of August 2019, AMMCS-2019 - The V AMMCS International Conference, University of Waterloo and Wilfrid Laurier University, Waterloo, Ontario, Canada.

- M.M. Rodrigues, *Time-fractional telegraph equation*, 29 of July - 2 of August 2019, ISAAC - 12th International ISAAC congress, University of Aveiro, Portugal.

- M.M. Rodrigues, *Time-fractional telegraph equation and its first and second fundamental solutions*, 22 - 26 of July 2019, IWOTA 2019 - 30th International Workshop on Operator Theory and its Applications, Instituto Superior Técnico, University of Lisbon, Portugal.

- M.M. Rodrigues, *Fundamental solutions of the time-fractional telegraph equation with Laplace or Dirac operators*, 7 -13 of July 2019, EQUADIFF 2019, University of Leiden, Leiden, Netherlands.

- M.M. Rodrigues, *Fundamental solutions of a time-fractional equation*, 27 -29 of June 2019, - VI- WCDANM, University of Beira Interior, Covilhã, Portugal.

- M.M. Rodrigues, *Fundamental solution for a multidimensional time-fractional equation and its applications*, 4 -7 of September 2018, NABVP - International Conference in Nonlinear Analysis and Boundary Value Problems, University of Santiago de Compostela, Santiago de Compostela, Spain.

- M.M. Rodrigues, *The multi-dimensional time telegraph equation and the telegraph process with Brownian time*, 9 - 13 of July 2018, Group32 - The 32nd International Colloquium on Group Theoretical Methods in Physics, Czech Technical University, Prague, Czech Republic.

- M.M. Rodrigues, *Norm estimates and uncertainty principles associated with the Laguerre integral transform*, 3 - 6 of July 2018, ICNPAA - 12th International Conference on Mathematical Problems in Engineering, Aerospace and Sciences , American University of Armenia (AUA), Yerevan, Armenia.

- M.M. Rodrigues, *Some results concerning the fundamental solution for the time-fractional telegraph equation in higher dimensions*, 10 - 15 of July 2017, CMFT 2017: International Conference on Computational Methods and Function Theory 2017, Maria Curie-Sklodowska University, Lublin, Poland.

- M.M. Rodrigues, *Fundamental solution of the time-fractional telegraph equation in higher dimensions*, 05 - 09 of June 2017, ICSF 2017: International Conference on Special Functions: Theory, Computation, and Applications, City University of Hong Kong, Hong Kong, China.

- M.M. Rodrigues, *New operational relations and applications of a fractional Fourier transform*, 25 - 29 of July 2016, IMSE 2016: 14th International Conference on integral methods for science and engineering, University of Padua, Padua, Italy.

- M.M. Rodrigues, *Some new properties and applications of a fractional Fourier transform*, 5 - 8 of July 2016, ICNPAA 2016 World Congress: 11th International Conference on Mathematical Problems in Engineering,

Aerospace and Sciences, University of La Rochelle, La Rochelle, France.

- M.M. Rodrigues, *Operational properties for the Laguerre transform*, 20 - 22 of July 2015, IKM 2015 - 20 th International Conference on the Applications of Computer Science and Mathematics in Architecture and Civil Engineering, University of Weimar, Weimar, Germany.

- M.M. Rodrigues, *Fractional extension of the classical circle Zernike polynomials*, 14 - 19 of July 2014, ICNPAA 2014 World Congress: 10th International Conference on Mathematical Problems in Engineering, Aerospace and Sciences, University of Narvik, Norway.

- M.M. Rodrigues, *Properties of the fractional circle Zernike polynomials*, 7 of July 2014, SMSW'14 Statistics and Mathematical Sciences Workshop - in Honour of Professor João Tiago Mexia, University of Beira Interior, Covilhã, Portugal.

- M.M. Rodrigues, *A Bessel Differential Heat Initial Value Problem in a Reproduction Kernel Hilbert Space Framework*, 24 May of 2014, 5th annual Workshop of Functional Analysis and Applications Group - devoted to the seventieth birthday of Professor Saburou Saitoh, University of Aveiro, Portugal.

- M.M. Rodrigues, *Study of some properties related to the Whittaker integral transform*, 5 - 9 of August 2013, 9TH ISAAC Congress, Pedagogical University of Krakow, Poland.

- M.M. Rodrigues, *Weierstrass transform associated with Whittaker integral transform*, 24 - 29 of July 2013, Fifth Conference of the Euro-American Consortium for Promoting the Application of Mathematics in Technical and Natural Sciences-AMiTaNS'13, Albena, Bulgaria.

- M.M. Rodrigues, *Heat kernel in terms of Whittaker's functions*, 10 - 14 of July 2012, 9th International Conference on Mathematical Problems in Engineering, Aerospace and Sciences- ICNPAA 2012, Vienna University of Technology, (Vienna) - Austria.

- M.M. Rodrigues, *Heat kernel for the index Whittaker transform*, 3 - 4 of July 2012, 6th Workshop on Statistics, Mathematics and Computation and 3rd Portuguese - Polish Workshop on Biometry in Honour of

Professor Dinis Pestana - University of Beira Interior (Covilhã) - Portugal.

- M.M. Rodrigues, *Index Whittaker transform: differential and mapping properties*, 11 - 15 of June 2012, *International Symposium on Orthogonal Polynomials and Special Functions - a Complex Analytic Perspective*- OSCA 2012, The Royal Danish Academy of Sciences and Letters (Copenhagen) - Denmark.

- M.M. Rodrigues, *Wave solution of two-parameter fractional Schrödinger equation*, August 29 - September 2 of 2011, 11th International Symposium on Orthogonal Polynomials, Special Functions and Applications- OPSFA 2011, University Carlos 3, Madrid, Spain.

- M.M. Rodrigues, *Study of Solutions of a Nonlinear Fractional Partial Differential Equation*, 6 - 8 of July 2011, International Conference of Applied and Engineering Mathematics- ICAEM 2011, Imperial College (London) - England.

- M.M. Rodrigues, *Fractional two-parameter Schrödinger equation*, June 30 - July 2 of 2011, Integral and Differential Operators and Their Applications- IDOTA 2011, Aveiro - Portugal.

- M.M. Rodrigues, *Fundamental solutions of the fractional two-parameter telegraph equation*, 5 - 7 of July 2010, International Conference on Modeling, Optimization and Dynamics- ICMOD 2010, Porto - Portugal.

- M.M. Rodrigues, *Exact and approximate solutions of reaction-diffusion-convection equations*, 16 - 19 of September 2008, Conference on Boundary Value Problems - BVP 2008, Santiago de Compostela - Spain.

- M.M. Rodrigues, *Interactive, Collaborative and Adaptative Learning Tools - The TexMat Example*, 4 - 7 of May 2008, Fourth International Conference on Web Information Systems and Tecnologies- WEBIST 2008, Funchal - Madeira, Portugal.

- M.M. Rodrigues, *The Speed of Reaction-Diffusion-Convection wavefronts in Nonuniform Media*, 16 - 21 of September 2007, International Conference of Numerical Analysis and Applied Mathematics - ICNAAM 2007 - Corfu, Greece

- M.M. Rodrigues, *On Propagation of convection-diffusion-reaction fronts in no-nuniform media*, 20-23 of Sptember 2006, Conference on Computational and Mathematical Methods on Science and Engineering - CMMSE 2006, University Rey Juan Carlos - Madrid, Spain.

7.2 Talks: Seminars / Workshops

- M. M. Rodrigues, Eigenfunctions of the time-fractional diffusion-wave operator, **Invited Speaker**, 22-23 of January 2020 -8th CIDMA annual meeting, University of Aveiro - Portugal.

- M. M. Rodrigues, Modeling ophthalmic surfaces using Zernike, Bessel and Chebyshev type functions, **Invited Speaker**, 22-23 of January 2020 -8th CIDMA annual meeting, University of Aveiro - Portugal.

- M.M. Rodrigues, *Fractional Sturm-Liouville problem in higher dimensions*, November 6, 2019, 10th Annual Workshop of Functional Analysis and Applications Group, University of Aveiro.

- M.M. Rodrigues, *First and second fundamental solutions of the time-fractional telegraph equation with Laplace operator*, October 24, 2018, 9th Annual Workshop of Functional Analysis and Applications Group, University of Aveiro.

- M.M. Rodrigues, *Some properties of a generalised class of Jacobi polynomials*, April 10, 2017, 8th Annual Workshop of Functional Analysis and Applications Group, University of Aveiro, Portugal.

- M. M. Rodrigues, *Performance of the modified Jacobi polynomials in visual optics*, **Invited Speaker**, 23-24 of January 2017 -5th CIDMA annual meeting, University of Aveiro - Portugal.

- M.M.Rodrigues, *Fractional extension of Zernike circular polynomials and their applications*, **Invited Speaker**, November 16, 2016, School of Technology and Management, Polytechnic Institute of Leiria, Leiria, Portugal.

- M.M. Rodrigues, *An operational method for solving a class of fractional differential equations*, July 18, 2016, 7th Annual Workshop of Functional Analysis and Applications Group, University of Aveiro, Portugal.

- M.M. Rodrigues, *Some properties of the Laguerre transform*, May 16, 2015, 6th Annual Workshop of Functional Analysis and Applications Group, University of Aveiro, Portugal.

- M.M. Rodrigues, *Fractional Zernike polynomials of two fractional parameters*, **Invited Speaker** Seminar, April 28, 2014, University of Erfurt, Erfurt, Alemanha.

- M.M. Rodrigues, *Fractional circle Zernike polynomials*, **Invited Speaker**, 20-21 de Janeiro de 2014 -2nd CIDMA annual meeting, University of Aveiro, Portugal.

- M.M. Rodrigues, *Integral transforms with Whittaker kernels*, **Invited Speaker** Seminar, November 7, 2013, University of Aveiro, Portugal.

- M.M. Rodrigues, *Whittaker transform on distributions*, June 8, 2013, 4th Annual Workshop of Functional Analysis and Applications Group, University of Aveiro, Portugal.

- M.M. Rodrigues, *Numerical method of two-parameter fractional telegraph equation*, **Invited Speaker** Seminar, November 22, 2012, University of Aveiro, Portugal.

- M.M. Rodrigues, *Heat kernel related to the index Whittaker transform*, October 27, 2012, 3th Annual Workshop of Functional Analysis and Applications Group, University of Aveiro, Portugal.

- M.M. Rodrigues, *Approximate solutions of partial differential equation by reproducing kernels*, **Invited Speaker**, September 14, 2012, Equations Day, University of Minho, Portugal.

- M.M. Rodrigues, *Operational calculus for Bessel's fractional equation*, October 29, 2011, 2th Annual Workshop of Functional Analysis and Applications Group, University of Aveiro, Portugal.

- M.M. Rodrigues, *Fundamental solutions of the fractional two-parameter telegraph equation*, **Invited Speaker** Seminar, September 23, 2010, University of Aveiro, Portugal.

- M.M. Rodrigues, *Lyapunov-type inequalities for boundary value problems with weight functions*, May 15, 2010 1th Annual Workshop of functional Analysis and Applications Group, University of Aveiro, Portugal.

- M.M. Rodrigues, *The convergence analysis of the decomposition method for a reaction diffusion equation with convection and for a class of nonlinear ordinary*

system of Raman type, **Invited Speaker** Seminar, March 17, 2010, University of Granada, Spain.

- M.M. Rodrigues, *Reaction-diffusion-convection equations in nonuniform media: wavefront speed and exact solutions*, **Invited Speaker** Seminar, October 11, 2007, University of Aveiro, Portugal.

8 Member of International Society

- Member of the International Society for Analysis, its Applications and Computation (ISAAC) Dezembro de 2013 - Dezembro de 2017.

9 Scientific Visits

- Scientific Visit to Professor **R. Krausshar**, 28 April – 2 May (2014), University of Erfurt, Germany.
- Scientific Visit to Professor **Neville J. Ford**, 5–12 March (2011), Department of Mathematics, University of Chester, England.
- Scientific Visit to Professor **Antonio Cañada**, 13–20 March (2010), Department of Mathematical Analysis of University of Granada, Spain.

10 Jury Member in Doctoral Thesis

- Ramiz Tapdigoglu, Problèmes inverses pour des équations différentielles aux dérivées fractionnaires, Universidade de La Rochelle, La Rochelle, França (18-01-2019).

11 Supervision

- MSc degrees:
  - Sandra Cristina Martins Barbosa (academic year 2015-2016);
  - Pedro Afonso Teodoro Faria Queiroz (academic year 2015-2016);
  - Bernardo Xavier Nogueira Duarte (academic year 2018-2019).
- Short research grants:
  - Ref. BI-LtPICS-2019A, Bernardo Xavier Nogueira Duarte (BSc ("Licenciatura") level - from 1-04- 2019 to 31-08-2019);
  - Ref. BI-LtPICS-2018B, Bernardo Xavier Nogueira Duarte (BSc ("Licenciatura") level - from 1-05- 2018 to 31-12-2018);
  - Ref. BI-LtPICS-2017-B1, Maryam Khaksar Ghalati (PhD level - from 1-05-2017 to 31-07-2017);
  - Ref. BI- HCTFNCHA-2016-B1, Hamed Moayyed (PhD level - from 1-02-2017 to 30-04-2017);
  - Ref. BIP-LtPICS-2016A, Hamed Moayyed (MSc level - from 1-05-2016 to 31-08-2016);
  - Ref. BI-Lt.PICS-2, Negar Bahramsari (MSc level - from 1-05-2015 to 31-12-2015).

12 Events Organization

12.1 Organizing Committee of International Conferences

- Member of the organizing committee: RDTE - Recent trends in differential equations, 27 - 29 July of 2016, Universidade de Aveiro, Portugal.
- Member of the organizing committee: MEME - Mathematics and Engineering in Marine and Earth Problems, 21 - 25 July of 2014, Universidade de Aveiro, Portugal.
- Member of the organizing committee: *WIMCS-CIDMA Wiener-Hope Workshop*, 23-24 of June 2014, University of Aveiro - Portugal.

- Member of the organizing committee: *IDOTA - Integral and Differential Operators and Their Applications*, 30 June - 02 July 2011, University of Aveiro - Portugal.

12.2 Sessions Organizer in International Conferences

- *Integral and Differential Equations & Applications* in VI Workshop on Computational Data Analysis and Numerical Methods (WCDANM), University of Beira Interior, Covilhã, Portugal

13 Teaching

- Differential Equations
- Calculus I
- Calculus II
- Calculus III
- Numerical Methods
- Statistics
- Biostatistics
- Advanced Topics in Mathematics II (PhD-students- PDMat-UA).