

# Miguel Domínguez Vázquez

Universidade de Santiago de Compostela ■ Departamento de Matemáticas  
Facultade de Matemáticas ■ Rúa Lope Gómez de Marzoa, s/n ■ 15782 Santiago de Compostela (Spain)  
miguel.dominguez@usc.es ■ +34 881813156 ■ <http://verso.mat.uam.es/~miguel.dominguezv>

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| BIOGRAPHICAL       | Born September 29, 1985, in Ourense (Spain).   |
| EMPLOYMENT         | Ramón y Cajal Researcher. Universidade de Santiago de Compostela, May 2019 – present.<br>Profesor Ayudante Doctor. Universidad Autónoma de Madrid, January 2019 – April 2019.<br>Marie Skłodowska-Curie Fellow. ICMAT-CSIC, Madrid, January 2018 – January 2019.<br>Profesor Ayudante Doctor. Universidad Autónoma de Madrid, September 2017 – January 2018.<br>Marie Skłodowska-Curie Fellow. ICMAT-CSIC, Madrid, April 2017 – September 2017.<br>Juan de la Cierva-training Fellow. ICMAT-CSIC, Madrid, January 2016 – April 2017.<br>Iberoamerican Visiting Researcher. IMPA, Rio de Janeiro, November 2013 – December 2015.<br>Postdoctoral Researcher. Universidade de Santiago de Compostela, July 2013 – October 2013.<br>FPU Fellow of the Spanish Ministry of Education. Univ. Santiago de Compostela, August 2009 – July 2013.   |
| EDUCATION          | PhD in Mathematics. Universidade de Santiago de Compostela, March 2013.<br>Thesis: <i>Isoparametric foliations and polar actions on complex space forms</i> .<br>Advisor: José Carlos Díaz Ramos<br>Graduate in Mathematics (with average grade 9.92 out of 10). Univ. Santiago de Compostela, July 2008.  |
| RESEARCH INTERESTS | Riemannian geometry and geometric analysis: submanifold theory, symmetric spaces, Lie group isometric actions, isoparametric foliations, polar actions, cohomogeneity one actions, overdetermined boundary problems of partial differential equations.   |
| PUBLICATIONS       | M. Domínguez-Vázquez, J. M. Manzano: Isoparametric surfaces in $\mathbb{E}(\kappa, \tau)$ -spaces, arXiv:1803.06154v1, 13 pp.<br>M. Domínguez-Vázquez, O. Pérez-Barral: Ruled hypersurfaces with constant mean curvature in complex space forms, arXiv:1802.09341v1, 7 pp.<br>M. Domínguez-Vázquez, A. Enciso, D. Peralta-Salas: Solutions to the overdetermined boundary problem for semilinear equations with position-dependent nonlinearities, <i>Adv. Math.</i> (2019), doi: 10.1016/j.aim.2019.05.017, 1–43.<br>J. C. Díaz-Ramos, M. Domínguez-Vázquez, V. Sanmartín-López: Submanifold geometry in symmetric spaces of noncompact type, <i>São Paulo J. Math. Sci.</i> (2019), doi:10.1007/s40863-019-00119-6, 1–36.<br>J. C. Díaz-Ramos, M. Domínguez-Vázquez, A. Kollross: On homogeneous manifolds whose isotropy actions are polar, <i>Manuscripta Math.</i> (2018), doi:10.1007/s00229-018-1077-1, 1–20.<br>M. Domínguez-Vázquez, C. Gorodski: Polar foliations on quaternionic projective spaces, <i>Tohoku Math. J. (2)</i> 70 (2018), no. 3, 353–375.<br>J. C. Díaz-Ramos, M. Domínguez-Vázquez, C. Vidal-Castiñeira: Strongly 2-Hopf hypersurfaces in complex projective and hyperbolic planes, <i>Ann. Mat. Pura Appl. (4)</i> 197 (2018), no. 2, 469–486.<br>J. C. Díaz-Ramos, M. Domínguez-Vázquez, C. Vidal-Castiñeira: Isoparametric submanifolds in two-dimensional complex space forms, <i>Ann. Global Anal. Geom.</i> 53 (2018), no. 2, 205–216.<br>J. C. Díaz-Ramos, M. Domínguez-Vázquez, A. Kollross: Polar actions on complex hyperbolic spaces, <i>Math. Z.</i> 287 (2017), no. 3-4, 1183–1213.<br>J. C. Díaz-Ramos, M. Domínguez-Vázquez, V. Sanmartín-López: Isoparametric hypersurfaces in complex hyperbolic spaces, <i>Adv. Math.</i> 314 (2017), 756–805.<br>J. C. Díaz-Ramos, M. Domínguez-Vázquez, C. Vidal-Castiñeira: Real hypersurfaces with two principal curvatures in complex projective and hyperbolic planes, <i>J. Geom. Anal.</i> 27 (2017), no. 1, 442–465.<br>M. Domínguez-Vázquez: Isoparametric foliations on complex projective spaces, <i>Trans. Amer. Math. Soc.</i> 368 (2016), no. 2, 1211–1249.<br>M. Domínguez-Vázquez: Canonical extension of submanifolds and foliations in noncompact symmetric spaces, <i>Int. Math. Res. Not. (IMRN)</i> 2015 (2015), no. 22, 12114–12125.<br>J. Berndt, M. Domínguez-Vázquez: Cohomogeneity one actions on some noncompact symmetric spaces of rank two, <i>Transform. Groups</i> 20 (2015), no. 4, 921–938. |

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- J. C. Díaz-Ramos, M. Domínguez-Vázquez: Isoparametric hypersurfaces in Damek-Ricci spaces, *Adv. Math.* 239 (2013), 1–17.
- J. C. Díaz-Ramos, M. Domínguez-Vázquez: Inhomogeneous isoparametric hypersurfaces in complex hyperbolic spaces, *Math. Z.* 271 (2012), 1037–1042.
- J. C. Díaz-Ramos, M. Domínguez-Vázquez: Non-Hopf real hypersurfaces with constant principal curvatures in complex space forms, *Indiana Univ. Math. J.* 60 (2011), no. 3, 859–882.
- M. Domínguez-Vázquez: Real hypersurfaces with constant principal curvatures in complex space forms, *Differential Geom. Appl.* 29 (2011), suppl. 1, 65–70.
- CONFERENCE PROCEEDINGS
- J. C. Díaz-Ramos, M. Domínguez-Vázquez, V. Sanmartín-López: Anti-De Sitter spacetimes and isoparametric hypersurfaces in complex space forms, *Lorentzian Geometry and Related Topics, GELOMA 2016, Málaga*, Springer Proceedings in Mathematics & Statistics, Vol. 211, 2017.
- M. Domínguez-Vázquez: On the existence of inhomogeneous isoparametric foliations of higher codimension on complex projective spaces, *Pure and Applied Differential Geometry – PADGE 2012 (In Memory of Franki Dillen)*, 116–125, Shaker Verlag, Aachen, 2013.
- M. Domínguez-Vázquez: Some interesting families of non-Hopf real hypersurfaces in complex space forms, *Proceedings of the 17th International Workshop on Differential Geometry and Related Fields*, 124–133, NIMS (Daejeon), Vol. 17, 2013.
- M. Domínguez-Vázquez: On isoparametric hypersurfaces in complex hyperbolic spaces, *International Meeting on Differential Geometry (Córdoba 2010)*, 71–92, 2013.
- M. Domínguez-Vázquez: On an inhomogeneous isoparametric family of hypersurfaces with constant principal curvatures in the Cayley hyperbolic plane, *XX International Fall Workshop on Geometry and Physics*, 169–173, AIP Conf. Proc., 1460, Amer. Inst. Phys., 2012.
- OTHER PUBLICATIONS
- M. Domínguez-Vázquez: *Isoparametric foliations and polar actions on complex space forms*. PhD thesis, Publicaciones del Departamento de Geometría y Topología 126, Univ. Santiago de Compostela, 2013.
- M. Domínguez Vázquez, A. Martínez Calvo, J. Seoane Bascoy (editors): *As matemáticas do veciño. Actas do Seminario de Iniciación á Investigación 2010*, Institute of Mathematics, Univ. Santiago de Compostela (2011).
- M. Domínguez Vázquez, A. Martínez Calvo, J. Seoane Bascoy (editors): *As matemáticas do veciño. Actas do Seminario de Iniciación á Investigación 2009*, Institute of Mathematics, Univ. Santiago de Compostela (2010).
- M. Domínguez-Vázquez: *Hipersuperficies con curvaturas principais constantes nos espazos proxectivo e hiperbólico complexos*. Advanced Studies Diploma thesis, Publicaciones del Departamento de Geometría y Topología 118, Univ. Santiago de Compostela, 2010.
- INVITED TALKS (CONFERENCES)
- Encuentro de la Red Española de Análisis Geométrico, Murcia (Spain), 10/04/2019.  
*Isoparametric surfaces in  $\mathbb{E}(\kappa, \tau)$ -spaces.*
- II Joint Meeting Brazil-Spain in Mathematics (RSME-SEMA-SBMAC-SBM), Cádiz (Spain), 12/12/2018.  
*Nonlinear overdetermined boundary problems in Riemannian manifolds.*
- Preliminary talks of the ICM Satellite Conference Modern Trends in Differential Geometry, São Paulo (Brazil), 19/07/2018.  
*On isoparametric surfaces in homogeneous 3-spaces.*
- Hiroshima Differential Geometry Day 2018, Hiroshima (Japan), 21/04/2018.  
*Isoparametric surfaces in homogeneous 3-manifolds.*
- Primer Encuentro Conjunto RSME-UMA, Buenos Aires (Argentina), 14/12/2017.  
*Isoparametric hypersurfaces in the complex hyperbolic space.*
- IV Encuentro Conjunto RSME-SMM, Valladolid (Spain), 22/07/2017.  
*Isoparametric hypersurfaces in complex hyperbolic spaces.*
- XXV International Fall Workshop on Geometry and Physics, IEM-CSIC, Madrid (Spain), 02/09/2016.  
*Isoparametric submanifolds of complex space forms.*
- First Joint Meeting Brazil-Spain in Mathematics (SBM-SBMAC-RSME), Fortaleza (Brazil), 08/12/2015.  
*Classification of isoparametric hypersurfaces in complex hyperbolic spaces.*
- Congreso de la RSME 2015, Granada (Spain), 03/02/2015.  
*Two construction methods of isoparametric hypersurfaces in noncompact symmetric spaces.*

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The second Japanese-Spanish workshop on Differential Geometry, Tokyo Institute of Technology (Japan), 10/02/2014.

*Isoparametric submanifolds of complex projective spaces.*

17th International Workshop on Differential Geometry, NIMS, Daejeon (South Korea), 02/10/2013.

*Some interesting families of non-Hopf real hypersurfaces in complex space forms.*

Geometric Analysis Seminar GAS-UV13, Valencia (Spain), 05/09/2013.

*The horospherical decomposition and new isoparametric hypersurfaces in noncompact symmetric spaces.*

Geometry Meeting 2012, Ferrol (Spain), 26/10/2012.

*Polar foliations for beginners.*

Differential Geometry Days in honour of Luis A. Cordero, Santiago de Compostela (Spain), 28/06/2012.

*Isoparametric foliations on complex projective spaces.*

Conference in Geometry and Global Analysis, celebrating P. Gilkey's 65th birthday, Santiago de Compostela (Spain), 16/12/2010.

*Principal curvatures of isoparametric hypersurfaces in complex hyperbolic spaces.*

Geometry Meeting 2010, Ferrol (Spain), 07/10/2010.

*The classification problem of isoparametric hypersurfaces.*

Workshop on Hypersurface Geometry and Integrable Systems, Tohoku University, Sendai (Japan), 25/08/2010.

*Real hypersurfaces with constant principal curvatures in complex projective and hyperbolic spaces.*

## INVITED TALKS (SEMINARS)

University of Oklahoma, Geometry Seminar, Norman (USA), 03/10/2018.

*On isoparametric hypersurfaces in noncompact symmetric spaces.*

University of Notre Dame, Felix Klein Seminar, South Bend (USA), 26/09/2018.

*Overdetermined elliptic problems in Riemannian manifolds.*

Washington University in St. Louis, Geometry Seminar, St. Louis (USA), 14/09/2018.

*Isoparametric surfaces in homogeneous 3-manifolds.*

Washington University in St. Louis, Colloquium of the Department of Mathematics and Statistics, St. Louis (USA), 13/09/2018.

*Polar foliations on symmetric spaces.*

IMPA, Differential Geometry Seminar, Rio de Janeiro (Brazil), 12/07/2018.

*Cohomogeneity one actions on symmetric spaces of noncompact type.*

Universidade de Santiago de Compostela, Vidal Abascal Seminar, Santiago (Spain), 07/06/2018.

*Isoparametric surfaces in homogeneous spaces.*

Universidad de Murcia, Rey Pastor Seminar, Murcia (Spain), 25/05/2017.

*Cohomogeneity one actions on symmetric spaces of noncompact type.*

Universidade de Santiago de Compostela, Vidal Abascal Seminar, Santiago (Spain), 21/07/2016.

*Isoparametric hypersurfaces in overdetermined PDE problems.*

Universidade de Santiago de Compostela, Vidal Abascal Seminar, Santiago (Spain), 03/03/2016.

*Classification of polar foliations in the quaternionic projective space.*

Universidade de São Paulo, Geometry Seminar, São Paulo (Brazil), 23/10/2015.

*Polar foliations on quaternionic projective spaces.*

IMPA, Differential Geometry Seminar, Rio de Janeiro (Brazil), 01/10/2015.

*Canonical extension of submanifolds in noncompact symmetric spaces.*

Universidade de São Paulo, Geometry Seminar, São Paulo (Brazil), 03/07/2015.

*Extending submanifolds in the symmetric spaces of noncompact type.*

IMPA, Differential Geometry Seminar, Rio de Janeiro (Brazil), 09/10/2014.

*Polar foliations on complex projective spaces.*

Universidade de São Paulo, Geometry Seminar, São Paulo (Brazil), 30/05/2014.

*Inhomogeneous isoparametric foliations and prime numbers.*

Universidade de Brasília, Geometry Seminar, Brasília (Brazil), 31/03/2014.

*Homogeneity of isoparametric submanifolds and prime numbers.*

IMPA, Differential Geometry Seminar, Rio de Janeiro (Brazil), 16/01/2014.

*Hypersurfaces with two principal curvatures in nonflat complex space forms.*

Universidade Federal Fluminense, Geometry Seminar, Rio de Janeiro (Brazil), 07/11/2013.

*A geometric characterisation via prime numbers.*

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|                   | <p>King's College London and University College London, Geometry Seminar, London (UK), 07/05/2013.<br/><i>Inhomogeneous isoparametric foliations.</i></p> <p>ICMAT, Geometry Seminar, Madrid (Spain), 11/02/13.<br/><i>The classification problem of isoparametric foliations.</i></p> <p>Universität Stuttgart, Geometry and Topology Seminar, Stuttgart (Germany), 19/06/2012.<br/><i>Inhomogeneous isoparametric families on complex projective spaces.</i></p> <p>Universität zu Köln, Geometry Seminar, Cologne (Germany), 19/04/2011.<br/><i>Homogeneous and isoparametric hypersurfaces in non-compact rank-one symmetric spaces.</i></p>  |
| OTHER TALKS       | <p>International Congress of Mathematicians - ICM 2018, Rio de Janeiro (Brazil), 02/08/2018.<br/><i>Existence and symmetry of solutions to overdetermined boundary problems on Riemannian manifolds.</i></p> <p>Pure and Applied Differential Geometry - PADGE 2017, Leuven (Belgium), 23/08/2017.<br/><i>Overdetermined boundary value problems on Riemannian manifolds.</i></p> <p>Geometry and Dynamics of Foliations, ICMAT, Madrid (Spain), 02/09/2014.<br/><i>Classification of isoparametric foliations on complex projective spaces.</i></p> <p>XVIII Escola de Geometria Diferencial, Brasília (Brazil), 28/07/2014.<br/><i>Polar actions on complex hyperbolic spaces.</i></p> <p>Congreso de Jóvenes Investigadores de la RSME, Seville (Spain), 19/09/2013.<br/><i>Isoparametric families in Damek-Ricci spaces.</i></p> <p>Conference on Pure and Applied Differential Geometry PADGE 2012, Leuven (Belgium), 28/08/2012.<br/><i>On the existence of inhomogeneous isoparametric foliations of higher codimension on complex projective spaces.</i></p> <p>VI International Meeting on Lorentzian Geometry – Gelogra 2011, Granada (Spain), 08/09/2011.<br/><i>Families of parallel CMC hypersurfaces in noncompact rank-one symmetric spaces.</i></p> <p>International Meeting on Differential Geometry, Córdoba (Spain), 15/11/2010.<br/><i>On isoparametric hypersurfaces in complex hyperbolic spaces.</i></p> <p>DGA 2010 – Differential Geometry and its Applications, Brno (Czech Republic), 30/08/2010.<br/><i>Real hypersurfaces with constant principal curvatures in complex space forms.</i></p> |
| POSTERS           | <p>International Fall Workshop on Geometry and Physics, ICMAT, Madrid (Spain), 31/08/2011.<br/><i>Some results on isoparametric hypersurfaces in nonflat complex space forms.</i></p> <p>Conference in Geometry and Global Analysis, celebrating P. Gilkey's 65th birthday, Santiago de Compostela (Spain), 13/12/2010.<br/><i>Principal curvatures of isoparametric hypersurfaces in complex hyperbolic spaces.</i></p> <p>Lectures on Lorentzian Geometry, Granada (Spain), 08/02/2010.<br/><i>Hypersurfaces with constant principal curvatures in complex projective and hyperbolic spaces.</i></p>  |
| GRANTS AND AWARDS | <p><i>Ramón y Cajal Fellowship.</i> Ministry of Science, Innovation and Universities (Spain), 2018.</p> <p><i>Marie Skłodowska-Curie Individual Fellowship (Standard EF).</i> European Commission, 2017.</p> <p><i>Extraordinary PhD Award.</i> University of Santiago de Compostela (Spain), 2016.</p> <p><i>Juan de la Cierva-training Fellowship.</i> Ministry of Economy and Competitiveness (Spain), January 2016 – December 2017.</p> <p><i>Iberoamerican Visiting Researcher Grant.</i> IMPA (Brazil), November 2013 – December 2015.</p> <p><i>Doctor Europeus.</i> University of Santiago de Compostela, 2013.</p> <p><i>Grant of the National Programme for the Formation of University Professors (FPU).</i> Ministry of Education (Spain), August 2009 – July 2013.</p> <p><i>Grant for postgraduate studies.</i> Galician Government (Spain), October 2008 – July 2009.</p> <p><i>Third position in the National Graduation Award.</i> Ministry of Education (Spain), 2008.</p> <p><i>Galician Graduation Award.</i> Galician Government (Spain), 2008.</p> <p><i>Extraordinary Graduation Award.</i> University of Santiago de Compostela, 2008.</p> <p><i>Departmental collaboration grant.</i> Galician Government (Spain), October 2007 – July 2008.</p> <p><i>Galician Extraordinary Award of pre-university education.</i> Galician Government, 2003.</p> <p><i>Gold medal in the National Chemistry Olympiad.</i> Spanish Government, 2003.</p> <p><i>Silver medal in the Spanish Physics Olympiad.</i> Spanish Government, 2003.</p>   |

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|                                    | <p><i>Silver medal in the Spanish Mathematical Olympiad</i>. Spanish Government, 2003.</p>  |
| RESEARCH STAYS                     | <p><i>Universidad de Cádiz</i> (Spain), 1 week, 17/02/2019 – 22/02/2019.<br/><i>University of Oklahoma</i> (USA), 1 week, 01/10/2018 – 05/10/2018.<br/><i>University of Notre Dame</i> (USA), 2 weeks, 16/09/2018 – 28/09/2018.<br/><i>Washington University in St. Louis</i> (USA), 4 days, 12/09/2018 – 15/09/2018.<br/><i>Instituto Nacional de Matemática Pura e Aplicada – IMPA</i> (Brazil), 1 week, 10/07/2018 – 16/07/2018.<br/><i>University of Hiroshima</i> (Japan), 3 weeks, 12/04/2018 – 04/05/2018.<br/><i>Universidad de Murcia</i> (Spain), 1 week, 21/05/2017 – 28/05/2017.<br/><i>Universidade de São Paulo</i> (Brazil), 2 weeks, 27/03/2017 – 07/04/2017.<br/><i>Instituto Nacional de Matemática Pura e Aplicada – IMPA</i> (Brazil), 2 weeks, 13/03/2017 – 24/03/2017.<br/><i>Universidade de São Paulo</i> (Brazil), 2 months, 23/06/2014 – 23/07/2014 and 10/06/2015 – 10/07/2015.<br/><i>King's College London</i> (United Kingdom), 3 months, 01/04/2013 – 01/07/2013.<br/><i>Universität Stuttgart</i> (Germany), 1 week, 17/06/2012 – 24/06/2012.<br/><i>Universität zu Köln</i> (Germany), 3 months, 01/04/2011 – 01/07/2011.</p>  |
| PARTICIPATION IN RESEARCH PROJECTS | <p><i>Geometric and analytic aspects of isoparametric hypersurfaces</i> (Marie Skłodowska-Curie project No. 745722). Horizon 2020 (European Commission), 2017 – 2019, €19.200, 1 researcher. Experienced Researcher: M. Domínguez-Vázquez.</p> <p><i>Homogeneity and curvature of manifolds and submanifolds</i> (ED431F 2017/03). Galician Government (Spain), 2017 – 2018, €40.000, 7 researchers. Principal investigator: J. C. Díaz-Ramos.</p> <p><i>Symmetry, curvature and differential equations in geometry</i> (MTM2016-75897-P). Ministry of Economy and Competitiveness (Spain), 2016 – 2019, €72.963, 12 researchers. Principal investigators: José Carlos Díaz-Ramos, Eduardo García-Río.</p> <p><i>Symmetry, homogeneity and curvature</i> (EM2014/009). Galician Government (Spain), 2014 – 2017, €93.000, 7 researchers. Principal investigator: J. C. Díaz-Ramos.</p> <p><i>Symmetry, curvature and rigidity of geometric structures</i> (MTM2013-41335-P). Ministry of Economy and Competitiveness (Spain), 2014 – 2016, €47.700, 11 members. Principal investigators: J. C. Díaz-Ramos, E. García-Río.</p> <p><i>Consolidation of competitive research units of the Galician university system</i> (GRC2013-045). Galician Government (Spain), 2013 – 2016, €185.000, 10 researchers. Principal investigator: E. García-Río.</p> <p><i>Curvature and symmetry in semi-Riemannian geometry</i> (MTM2009-07756). Ministry of Science and Innovation (Spain), 2010 – 2012, €130.075, 14 researchers. Principal investigator: E. García-Río.</p> <p><i>Curvature and structure of Lorentzian manifolds</i> (09PXIB207151PR). Galician Government (Spain), 2009 – 2012, €99.710, 12 researchers. Principal investigator: E. García-Río.</p> |
| SERVICE                            | <p>Referee for <i>The Journal of Geometric Analysis</i> (x3); <i>Mathematische Zeitschrift</i>; <i>Proceedings of the Royal Society of Edinburgh A</i>; <i>Revista Matemática Iberoamericana</i>; <i>Publicacions Matemàtiques</i>; <i>Journal of Geometry and Physics</i>; <i>Differential Geometry and its Applications</i> (x4); <i>Archiv der Mathematik</i>; <i>Houston Journal of Mathematics</i> (x4); <i>Mathematical Physics, Analysis and Geometry</i>; <i>Mediterranean Journal of Mathematics</i> (x2); <i>Journal of Geometry</i>; <i>Publicationes Mathematicae Debrecen</i>; <i>Tsukuba Journal of Mathematics</i>; <i>Bulletin of the Korean Mathematical Society</i> (x2); <i>Extracta Mathematicae</i>; <i>Bulletin of the Malaysian Mathematical Sciences Society</i>.</p> <p>Reviewer for <i>Mathematical Reviews</i> of the American Mathematical Society (x23).</p> <p>Member of the PhD thesis committee of <i>Benigno Alves</i>. Advisors: M. M. Alexandrino and M. Á. Javaloyes. University of São Paulo, 13/11/2017.</p> <p>Member of the PhD thesis committee of <i>Francisco J. Gozzi</i>. Advisors: L. A. Florit and W. Ziller. IMPA, 1/12/2014.</p> <p>Co-organiser of the <i>Seminario Vidal Abascal</i> (Seminar of the Department of Geometry and Topology of the University of Santiago de Compostela), November 2009 – October 2013.</p> <p>Co-organiser and editor of the proceedings of the <i>Seminario de Iniciación á Investigación</i> (Seminar of PhD students at the University of Santiago de Compostela), 2009 – 2010.</p>   |

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## ADVISORSHIP OF STUDENTS

PhD Thesis of *Alberto Rodríguez Vázquez* (co-advised jointly with J. C. Díaz-Ramos). University of Santiago de Compostela, scheduled for 2022.

PhD Thesis of *Olga Pérez Barral* (co-advised jointly with J. C. Díaz-Ramos). University of Santiago de Compostela, scheduled for 2021.

PhD Thesis of *Víctor Sanmartín López* (co-advised jointly with J. C. Díaz-Ramos). University of Santiago de Compostela, scheduled for July 2019.

Master Thesis of *Alberto Rodríguez Vázquez* (co-advised jointly with J. C. Díaz-Ramos), entitled *Hipersuperficies con curvaturas principais constantes en variedades de Kähler con curvatura seccional holomorfa constante*. University of Santiago de Compostela, 17/07/2018. It deserved the highest mark (Matrícula de Honor).

Undergraduate research project *Submanifolds in symmetric spaces* by *Alberto Rodríguez Vázquez*. Severo Ochoa Initiation to Research Programme, ICMAT, 06/2017 – 09/2017.

Undergraduate research project *Singular Riemannian foliations in spheres* by *Miguel Ángel Berbel López*. Severo Ochoa Initiation to Research Programme, ICMAT, 06/2016 – 09/2016.

PhD Thesis of *Cristina Vidal Castiñeira* (co-advised jointly with J. C. Díaz-Ramos), entitled *Submanifolds in complex projective and hyperbolic planes*. University of Santiago de Compostela, 22/07/2016. It deserved the highest mark (Cum Laude) and the international distinction awarded by the university.

Supervision of the research stays of the PhD students *Cristina Vidal Castiñeira* (23/02/2015 – 23/05/2015) and *Víctor Sanmartín López* (15/09/2015 – 15/12/2015) at IMPA.

Master Thesis of *Cristina Vidal Castiñeira* (co-advised jointly with J. C. Díaz-Ramos), entitled *Hipersuperficies reais con dúas curvaturas principais nos planos proxectivo e hiperbólico complexos*. University of Santiago de Compostela, 22/07/2013. It deserved the highest mark (Matrícula de Honor).

## SCIENCE OUTREACH

*The science of imagining other worlds* (general public lecture). Ateneo de Ourense (Spain), 30/10/2018.

*Without imagination, and only with reason, in mathematics we would not achieve anything* (interview in a Spanish newspaper). Faro de Vigo, 26/10/2018.

*Symmetry, isoparametric hypersurfaces and prime numbers* (short talk in a meeting of scientists of different areas). VIII Galician Meeting of Young Researchers Abroad, A Coruña (Spain), 28/12/2017.

*Workshop on soap bubbles, minimal surfaces and shortest paths* (jointly with M. M. González, aimed at high school students). Science week at UAM, Madrid, 14/11/2017.

*Profile: Miguel Domínguez Vázquez* (article authored by E. Del Pozo). ICMAT Newsletter, no. 12, 03/2016.

*Equations with symmetry* (talk and article). Initiation to Research Seminar, Santiago de Compostela, 12/12/2012.

*Differential Geometry... what and why?* (short talk). Seminar of Young Researchers, Santiago, 30/11/2011.

*The skeleton of a Lie group* (talk and article). Initiation to Research Seminar, Santiago de Compostela, 19/10/2011.

*Isoparametric hypersurfaces in spheres* (talk and article). Initiation to Research Seminar, Santiago de Compostela, 28/04/2010.

*Poincaré's hyperbolic world* (talk and article). Initiation to Research Seminar, Santiago de Compostela, 22/04/2009.

## TEACHING EXPERIENCE

*Advanced course in Geometry*. Master's Degree in Mathematics and Applications, Universidad Autónoma de Madrid, 40 hours, 2018/2019.

*Geometry of curves and surfaces*. Degree in Mathematics (4th semester) and Double Degree in Computers and Mathematics (6th semester), Universidad Autónoma de Madrid, 60 hours, 2018/2019.

*Geometry of real hypersurfaces in hyperbolic spaces*. Doctorate course, Universidad de Cádiz, 7.5 hours, 02/2019.

*Submanifolds and isometric actions in symmetric spaces*. Doctorate course, Universidade de Santiago de Compostela, 6 hours, 10/2018.

*Isoparametric hypersurfaces*. JAE School of Mathematics (aimed at advanced undergraduate students), Instituto de Ciencias Matemáticas (ICMAT), 10 hours, 06/2018.

*Algebraic structures*. Degree in Mathematics (3rd semester), Universidad Autónoma de Madrid, 60 hours, 2017/2018. Students satisfaction: 4.72 out of 5.

*Mathematics I*. Degree in Chemical Engineering (1st semester), Universidad Autónoma de Madrid, 60 hours, 2017/2018. Students satisfaction: 4.53 out of 5.

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*Submanifolds and isometric actions in symmetric spaces of noncompact type.* Postgraduate Mathematics course, Universidade de São Paulo, 30 hours, 2017.

*Algebraic structures.* Degree in Mathematics (3rd semester), Universidad Autónoma de Madrid, 60 hours, 2016/2017. Students satisfaction: 4.64 out of 5.

*Introduction to isoparametric foliations.* Postgraduate Mathematics course, Universidade de São Paulo, 10 hours, 2014.

*Riemannian Geometry.* Doctorate course, IMPA, 48 hours, 2014. Students satisfaction: 4.9 out of 5.

*Member of the teaching innovation group in Algebra and Geometry GrID-A/XD.* Universidade de Santiago de Compostela. Coordinator: María Elena Vázquez Abal.

*Mathematics and Statistics.* Degree in Pharmacy (2nd semester), Universidade de Santiago de Compostela, 60 hours, 2012/2013.

*Topology of Euclidean spaces.* Degree in Mathematics (2nd semester), Universidade de Santiago de Compostela, 60 hours, 2011/2012.

*Certificate of Pedagogical Aptitude.* Universidade de Santiago de Compostela, 2009.

## HABILITATIONS

*Acreditación para Profesor Contratado Doctor,* ANECA (Spain), 20/04/2016.

## LANGUAGES

Native speaker of Spanish and Galician.

Fluent in English (Certificate in Advanced English) and Portuguese.

Reading skills in French and German (Zertifikat Deutsch).