

# Joaquín PÉREZ

Last update: January 7, 2018

## PERSONAL DATA

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PLACE AND DATE OF BIRTH: Tarifa, Cádiz (Spain) | November 14, 1966  
SCHOOL ADDRESS: Departamento de Geometría y Topología, Facultad de Ciencias  
Universidad de Granada, Campus Fuentenueva,  
18071 Granada (Spain)  
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HOME ADDRESS: Trajano 1, 2ºE, 180002 Granada (Spain)  
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SPANISH IDENTITY CARD (NIF): 31846392V  
SCOPUS AUTHOR ID: 35797522100  
RESEARCHER ID (WOS): G-2791-2011  
ORCID ID: 0000-0003-1877-8884  
GOOGLE SCHOLAR: [scholar.google.com/citations?user=GK5bCXQAAAAJ&hl=es](https://scholar.google.com/citations?user=GK5bCXQAAAAJ&hl=es)

## EDUCATION

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March 1996 Doctorado en Matemáticas (Ph.D. Mathematics), **University of Granada**, Spain  
Thesis: “Superficies minimales en  $\mathbb{R}^3$ ” (“Minimal surfaces in  $\mathbb{R}^3$ ”)  
Thesis advisor: Prof. Antonio Ros  
July 1989 Examen de Grado - Tesina (M.S. Mathematics), **University of Granada**, Spain  
Little thesis: “La aplicación de Gauss de las superficies mínimas en  $\mathbb{R}^3$ ”  
 (“The Gauss map of minimal surfaces in  $\mathbb{R}^3$ ”) Advisor: Prof. Antonio Ros  
July 1989 Licenciatura en Ciencias Matemáticas (B.A. Mathematics)  
**University of Granada**, Spain  
June 1984 B. Sc. at Instituto Mixto no 2, Algeciras (Cádiz, Spain)

## RESEARCH AREAS

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Differential Geometry • Geometric Analysis • Minimal surfaces • Surfaces with constant mean curvature • Isoperimetric problem

## PROFESSIONAL EXPERIENCE

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### Teaching / Research positions

<i>March 7, 2007 - Present</i>	Catedrático de Universidad (Full Professor) Department of Geometry and Topology, University of Granada
<i>February 20, 1998 – March 6, 2007</i>	Profesor Titular de Universidad (Associate Professor) Department of Geometry and Topology, University of Granada
<i>April 25, 1997 – February 19, 1998</i>	Profesor Titular Interino de Universidad (Assistant Professor) Department of Geometry and Topology, University of Granada
<i>October 1, 1996 – April 24, 1997</i>	Profesor Asociado Tipo III (Senior Lecturer with Ph. D. Thesis) Department of Geometry and Topology, University of Granada
<i>October 1, 1991 – September 30, 1996</i>	Profesor Asociado Tipo II (Senior Lecturer without Ph. D. Thesis) Department of Geometry and Topology, University of Granada
<i>October 1, 1989 – September 30, 1991</i>	Profesor Asociado Tipo I (Lecturer) Department of Geometry and Topology, University of Granada

## Management positions

October 2015 – Present | Director of the Mathematics Research Institute IEMath-GR  
University of Granada

## PROFESSIONAL SERVICE

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August 2015 – Present	Remote expert for evaluating processes National Agency of Evaluation and Prospective (ANEP) Spain
2015 – Present	Evaluator of research projects in Differential Geometry National Institutes of Sciences and Technology (INCT) Program CNPq (Brazil)
2014 – Present	Evaluator in hiring processes for professors at Greek Universities APELLA SYSTEM (Greece)
2014 – 2015	Member of the Management Board of the International Excellence Campus GENIL (Granada Excellence Network of Innovation Laborato- ries)
2014	Evaluator of research projects of the EPSRC (Engineering and Physical Sciences Research Council, United Kingdom)
2013 – 2017	Member of the International Relations Commission of the RSME Royal Mathematical Society of Spain
June 2012 – March 2013	Commissioner of the Mathematics exhibition IMAGINARY-RSME Mathematics Institute Oberwolfach (Germany) - RSME - Parque Cien- cias de Granada
2011-2014	Coordinator in Spain of the French-Spanish Network on Geometric Analysis (members: CNRS, Université Marné-la-Vallée, Université Paris est Creteil val de Marne, Université François-Rabelaise Tours, Université de Bretagne Occidentale Brest, Universidad de Granada, Universidad de Murcia, Universidad de Valencia, CSIC).
2010	Director of the Santalo Summer School 2010 on Geometric Analysis (MIGS-C6-0384 – CONSOLIDER I-MATH)
2008 – 2011	Member of the Platform Committee MIGS (Mathematics International Graduate School) Consolider i-MATH, Spain
2008	Evaluator of research projects in Geometry and Topology National Plan of Mathematics, Ministry of Science and Education, Spain

## LANGUAGES

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SPANISH: Mothertongue  
ENGLISH: Fluent

## COMPUTER SKILLS

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Basic Knowledge: HTML, LINUX, ubuntu, 3D Studio, CorelDraw, Excel  
Intermediate Knowledge:  $\text{\LaTeX}$ , Word, Open Office, WordPress, Wolfram Mathematica, IPE,  
Surface Evolver

## PUBLICATIONS

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1993

1. Joaquín Pérez & Antonio Ros, *Some uniqueness and nonexistence theorems for embedded minimal surfaces*, *Mathematische Annalen*, vol. 295 (1993) 513–525.

1996

2. Joaquín Pérez & Antonio Ros, *Properly embedded minimal surfaces with finite total curvature*, in *Geometry and Topology of Submanifolds VIII*, Proceedings of the 1995 Nord-

fjordeid Conference, Norway, ISBN 981-02-2776-0 (1996) 280–281.

3. Joaquín Pérez & Antonio Ros, *The space of properly embedded minimal surfaces with finite total curvature*, Indiana Univ. Math. J., vol. 45 (1996) 177-204.

4. Joaquín Pérez, *Superficies minimales en  $\mathbb{R}^3$* , PhD Thesis, University of Granada (1996).

#### 1997

5. Joaquín Pérez, *On singly-periodic minimal surfaces with planar ends*, Transactions of the AMS, vol. 349, no. 6 (1997) 2371-2389.

#### 1998

6. Joaquín Pérez, *Riemann bilinear relations on minimal surfaces*, Mathematische Annalen, vol. 310, no. 2 (1998) 307-332.

7. William H. Meeks III, Joaquín Pérez & Antonio Ros, *Uniqueness of the Riemann minimal examples*, Inventiones Mathematicae, vol. 133, no. 1 (1998) 107-132.

8. Joaquín Pérez, *Strong rigidity and periodic minimal surfaces*, in Proceedings of the 1st International Meeting on Geometry and Topology (Editors A. Pereira do Vale & R. Pinto), Depósito Legal 129516/98, Braga, Portugal (1998) 169-174.

#### 1999

9. Joaquín Pérez, *A rigidity theorem for periodic minimal surfaces*, Communications in Analysis and Geometry, vol. 7, no. 1 (1999) 95-104.

10. Joaquín Pérez & Antonio Ros, *The space of complete minimal surfaces with finite total curvature as lagrangian submanifold*, Transactions of the AMS, vol. 351, no. 10 (1999) 3935-3952.

#### 2001

11. Laurent Hauswirth, Joaquín Pérez & Pascal Romon, *Embedded minimal ends of finite type*, Transactions of the AMS, vol. 353, no. 4 (2001) 1335-1370.

#### 2002

12. Joaquín Pérez & Antonio Ros, *Properly embedded minimal surfaces with finite total curvature*, in The Global Theory of minimal surfaces in flat spaces, Lecture Notes in Math, Springer-Verlag, vol. 1775 (2002) 15-66.

13. Joaquín Pérez & Antonio Ros, *Properly embedded minimal annuli bounded by a convex curve*, Journal of the Institute of Mathematics of Jussieu, vol. 1, no. 2 (2002) 293-305.

#### 2003

14. Francisco J. López & Joaquín Pérez, *Parabolicity and Gauss map of minimal surfaces*, Indiana University Math Journal, vol. 4, no. 52 (2003) 1017-1026.

15. Francisco Martín & Joaquín Pérez, *Superficies minimales foliadas por circunferencias: los ejemplos de Riemann*, Gaceta de la RSME, vol. 6, no. 3 (2003) 571-596.

#### 2004

16. Laurent Hauswirth, Joaquín Pérez, Pascal Romon & Antonio Ros, *The periodic isoperimetric problem*, Transactions of the AMS, vol. 356 (2004) 2025-2047.

17. William H. Meeks III, Joaquín Pérez & Antonio Ros, *The geometry of minimal surfaces of finite genus I; curvature estimates and quasiperiodicity*, Journal of Differential Geometry, vol. 66, no. 1 (2004) 1-45.

18. William H. Meeks III, Joaquín Pérez & Antonio Ros, *The geometry of minimal surfaces of finite genus II; nonexistence of one limit end examples*, Inventiones Mathematicae, vol. 158, no. 3 (2004) 323-341.

19. William H. Meeks III & Joaquín Pérez, *Conformal properties in classical minimal surface theory*, in *Surveys in Differential Geometry IX, Eigenvalues of the Laplacian and other geometric operators*, International Press (2004) 275-336.

#### 2005

20. Joaquín Pérez, *Parabolicity and minimal surfaces*, in *The Global Theory of Minimal Surfaces*, Clay Mathematics Proceedings, vol. 2 (2005) 163-174, ISSN: 1534-6455, ISBN: 0-8218-3587-4.
21. Joaquín Pérez, *Uniqueness of the Riemann minimal surfaces*, in *The Global Theory of Minimal Surfaces*, Clay Mathematics Proceedings, vol. 2 (2005) 597-610, ISSN: 1534-6455, ISBN: 0-8218-3587-4.
22. Joaquín Pérez, Magdalena Rodríguez & Martin Traizet, *The classification of doubly periodic minimal tori with parallel ends*, *Journal of Differential Geometry*, vol. 69, no. 3 (2005) 523-577.
23. Joaquín Pérez, *Limits by rescalings of minimal surfaces, minimal laminations, curvature decay and local pictures*, notes of course in the Workshop *Moduli spaces of properly embedded minimal surfaces*, American Institute of Mathematics (2005)

#### 2006

24. William H. Meeks III, Joaquín Pérez & Antonio Ros, *Liouville properties for embedded minimal surfaces*, *Communications in Analysis and Geometry*, vol. 14, no. 4 (2006) 703-723.

#### 2007

25. Joaquín Pérez & Martin Traizet, *The classification of singly periodic minimal surfaces with genus zero and Scherk type ends*, *Transactions of the AMS*, vol. 359, no. 3 (2007) 965-990.
26. Joaquín Pérez, *Stable minimal surfaces bounded by a straight line*, *Calculus of Variations and Partial Differential Equations*, vol. 29, no. 2 (2007) 267-279.

#### 2008

27. William H. Meeks III, Joaquín Pérez & Antonio Ros, *Stable constant mean curvature surfaces*, in *Handbook of Geometric Analysis*, no. 1, International Press (2008) 301-380. ISBN: 978-1-57146-130-8.

#### 2009

28. William H. Meeks III & Joaquín Pérez, *Properly embedded minimal planar domains with infinite topology are Riemann minimal examples*, in *Current Developments in Mathematics 2008*, International Press (2009) 281-346. ISBN: 978-1-57146-139-1.

#### 2010

29. William H. Meeks III, Joaquín Pérez & Antonio Ros, *Limit leaves of a CMC lamination are stable*, *Journal of Differential Geometry*, vol. 84, no. 1 (2010) 179-189.

#### 2011

30. José Manzano, Joaquín Pérez & Magdalena Rodríguez, *Parabolic stable surfaces with constant mean curvature*, *Calculus of Variations and Partial Differential Equations*, vol. 42 (2011) 137-152.
31. William H. Meeks III & Joaquín Pérez, *The classical theory of minimal surfaces*, *Bulletin of the AMS*, vol. 48, no. 3 (2011) 325-407.

#### 2012

32. William H. Meeks III & Joaquín Pérez, *A survey on classical minimal surface theory*, *University Lecture Series (AMS)*, vol. 60 (2012) 182 pages, ISBN: 978-0-8218-6912-3.

33. William H. Meeks III & Joaquín Pérez, *Constant mean curvature surfaces in metric Lie groups*, in *Geometric Analysis: Partial Differential Equations and surfaces*, Contemporary Mathematics (AMS), vol. 570 (2012) 25-110.

**2014**

34. William H. Meeks III, Pablo Mira, Joaquín Pérez & Antonio Ros, *Isoperimetric domains of large volume in homogeneous three-manifolds*, *Advances in Mathematics*, vol. 264 (2014) 546-592.

**2015**

35. William H. Meeks III, Joaquín Pérez & Antonio Ros, *Properly embedded minimal planar domains*, *Annals of Mathematics*, vol. 181, no. 2 (2015) 473-546.

**2016**

36. William H. Meeks III & Joaquín Pérez, *CMC foliations of closed manifolds*, *The Journal of Geometric Analysis*, vol. 26, no. 3 (2016) 1647-1677.
37. William H. Meeks III & Joaquín Pérez & Antonio Ros, *Local removable singularity theorems for minimal laminations*, *Journal of Differential Geometry*, vol. 103, no. 2 (2016) 319-362.
38. William H. Meeks III, Joaquín Pérez & Antonio Ros, *The Dynamics Theorem for properly embedded minimal surfaces*, *Mathematische Annalen*, vol. 365 (2016) 1069-1089.
39. William H. Meeks III & Joaquín Pérez, *The Riemann minimal examples*, in *The Legacy of Bernhard Riemann after one hundred and fifty years*, *Advanced Lectures in Mathematics*, Higher Education Press (Beijing) and International Press (Boston) vol. 35 (2016) 417-457. ISBN: 978-704-031875-3.
40. William H. Meeks III, Joaquín Pérez & Antonio Ros, *The classification of CMC foliations of  $\mathbb{R}^3$  and  $\mathbb{S}^3$  with countably many singularities*, *American Journal of Mathematics*, vol. 138, no. 5 (2016) 1347-1382.
41. William H. Meeks III, Joaquín Pérez & Giuseppe Tinaglia, *Constant mean curvature surfaces*, in *Surveys in Differential Geometry XXI*, International Press (2016) 179-287. ISBN: 9781571463227.

**2017**

42. Joaquín Pérez, *Una nueva edad de oro de las superficies mínimas*, *Gaceta de la RSME*, vol. 20, no. 5 (2017) 193-211.
43. Joaquín Pérez, *A new golden age of minimal surfaces*, *Notices of the AMS*, vol. 64, no. 4 (2017) 347-358.
44. William H. Meeks III & Joaquín Pérez, *Finite type annular ends for harmonic functions*, *Mathematische Annalen*, vol. 367, no. 3 (2017) 1047-1056. DOI:10.1007/s00208-016-1407-0.
45. William H. Meeks III, Pablo Mira & Joaquín Pérez, *Embeddedness of spheres in homogeneous three-manifolds*, *International Mathematics Research Notices*, vol. 2017, no. 15 (2017) 4796-4813. Advance Access Publication July 20, 2016 DOI: 10.1093/imrn/rnw159.

**To appear**

46. William H. Meeks III, Joaquín Pérez & Antonio Ros, *The local picture theorem on the scale of topology*, *Journal of Differential Geometry*.
47. William H. Meeks III & Joaquín Pérez, *Embedded minimal surfaces of finite topology*, *Journal für die reine und angewandte Mathematik (Journal de Crelle)*. DOI: 10.1515/crelle-2017-0008.
48. William H. Meeks III & Joaquín Pérez, *Finite topology minimal surfaces in homogeneous three-manifolds*, *Advances in Mathematics*. DOI: 10.1016/j.aim.2017.03.015

## Submitted

49. William H. Meeks III, Pablo Mira, Joaquín Pérez & Antonio Ros, *Constant mean curvature spheres in homogeneous three-spheres*.
50. William H. Meeks III, Joaquín Pérez & Antonio Ros, *Structure theorems for singular minimal laminations*.
51. William H. Meeks III, Joaquín Pérez & Antonio Ros, *Bounds on the topology and index of classical minimal surfaces*.
52. William H. Meeks III, Pablo Mira & Joaquín Pérez, *The geometry of stable minimal surfaces in metric Lie groups*.
53. William H. Meeks III, Pablo Mira, Joaquín Pérez & Antonio Ros, *Constant mean curvature spheres in homogeneous three-manifolds*.

## PROFESSIONAL PRESENTATIONS

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### 1995

1. Speaker at the *Conference on Pure Differential Geometry*, Nordfjordeid (Norway). Title: Properly embedded minimal surfaces with finite total curvature.

### 1996

2. Speaker at the *International Conference on Differential Geometry*, IMPA (Rio de Janeiro, Brazil). Title: One-ended minimal surfaces with finite total curvature and convex planar boundary.
3. Speaker at the Geometry Seminar of the University of Massachusetts at Amherst (three talks). Titles: The moduli space near a nondegenerate minimal surface / The lagrangian second fundamental form for moduli space / One-ended minimal surfaces with convex planar boundary.

### 1997

4. Speaker at the *1st International Meeting on Geometry and Topology*, Braga (Portugal). Title: Strong rigidity and periodic minimal surfaces.

### 1998

5. Speaker at the Geometry Seminar of the University of Massachusetts at Amherst. Title: Uniqueness of the Riemann minimal examples.
6. Speaker at the conference *Aspects Geometriques et Analytiques des problemas a la courbure*, Marseille-Luminy (France). Title: Minimal surfaces of finite type end helicoidal ends.
7. Speaker at the Geometry Seminar of the University of Granada (two talks). Titles: Unicidad de los ejemplos de Riemann I, II.

### 1999

8. Speaker at the Geometry Seminar of the University of Granada. Title: Comportamiento asintótico de las superficies minimales embebidas de tipo finito.
9. Speaker at the conference *Global theory of minimal surfaces in flat spaces*, Martina Franca (Italy). Title: Asymptotic behavior of complete embedded minimal surfaces of finite type.

### 2001

10. Speaker at the Geometry Seminar of the University of Granada. Title: Parabolicidad y superficies minimales.

11. Speaker at the conference *Clay Mathematical Institute Summer School on Minimal Surfaces*, MSRI-Berkeley (California, USA). Title: Parabolic minimal surfaces.
12. Speaker at the conference *Clay Mathematical Institute Summer School on Minimal Surfaces*, MSRI-Berkeley (California, USA). Title: Uniqueness of the Riemann minimal surfaces.

#### 2002

13. Speaker at the Geometry Seminar of the Université Paris VII. Title: Parabolicity and Gauss map of minimal surfaces.

#### 2004

14. Speaker at the Geometry Seminar of the University of Granada. Title: Clasificación de los toros minimales doblemente periódicos con finales paralelos.
15. Speaker at the Geometry Seminar of the Institut de Mathematiques de Jussieu, Paris. Title: Doubly periodic minimal tori with parallel ends.

#### 2005

16. Plenary speaker at the conference *Moduli spaces of properly embedded minimal surfaces*, Palo Alto (California, USA). Title: Rescaling methods on minimal surfaces: minimal laminations, curvature decay and local pictures.
17. Speaker at the conference *Moduli spaces of properly embedded minimal surfaces*, Palo Alto (California, USA). Title: Singly periodic minimal surfaces with genus zero and Scherk-type ends.
18. Speaker at the *Geometry Day*, University of Granada. Title: Superficies mínimas estables con borde una recta.

#### 2007

18. Speaker at the Geometry Seminar of the Universidad Autónoma de Barcelona. Title: Superficies mínimas en  $\mathbb{R}^3$ : algunos problemas actuales.
19. Speaker at the conference *International Congress on minimal and constant mean curvature surfaces*, Buzios (Brazil). Title: Uniqueness of the Riemann minimal examples.
20. Speaker at the Geometry Seminar of the University of Granada. Title: La ecuación de Korteweg-de Vries y la clasificación de los ejemplos de Riemann.
21. Speaker at the Advanced School *The Poincaré Conjecture: Ricci flow and applications* (IMATH-CONSOLIDER), University of Granada. Title: Extinción en tiempo finito del flujo de Ricci.
22. Speaker at the Geometry Seminar of the University of Granada (two talks). Titles: Clasificación de los ejemplos de Riemann I-II.

#### 2008

23. Speaker at the conference *Minimal and CMC surfaces: Research in Pairs*, Kloster Schöntal (Germany). Title: KdV equation and Riemann minimal examples.
24. Speaker at the conference *Workshop on recent advances in Geometry and Topology of submanifolds*, Roma (Italy). Title: The Stable Limit Leaf Theorem.
25. Speaker at the conference *Current Developments in Mathematics*, Harvard University (USA). Title: Classification of properly embedded minimal planar domains: the Shiffman function and the KdV equation.

#### 2009

26. Speaker at the conference *Arbeitsgemeinschaft: minimal surfaces*, Mathematisches Forschungsinstitut Oberwolfach (Germany). Title: Embedded minimal surfaces with finite topology.

27. Speaker at the Geometry Seminar of the University of Granada. Title: Finales mínimos anulares de curvatura total infinita.
28. Three-hour course at the conference *Escuela de Analisis Geométrico*, Universidad de Granada (Spain). Title: Superficies mínimas y problema isoperimétrico.

#### 2010

29. Speaker at the conference *Algebraic, Geometric and Analytic aspects of surface theory*, Buzios (Brazil). Title: Nonnegative Schrödinger operators on parabolic manifolds.
30. Speaker at the Geometry Seminar of the University of Granada (two talks). Titles: Superficies con CMC en grupos de Lie métricos tridimensionales I-II.

#### 2011

31. Speaker at the Geometry Seminar of the University of Granada. Title: Superficies con CMC en grupos de Lie métricos tridimensionales III.
32. Speaker at the conference *Spanish-Japanese Workshop on Differential Geometry*, Universidad de Granada (Spain). Title: CMC spheres in three-dimensional metric Lie groups.
33. Three-hour course at the International Summer School *Minimal and Constant Mean Curvature Surfaces*, Universidad de Sevilla (Spain). Title: CMC surfaces in metric Lie groups.
34. Speaker at the conference *Congreso de Clausura del Proyecto i-MATH*, CIEM Castro Urdiales (Spain). Title: Actividades i-MATH enfocadas a jóvenes investigadores: Escuela Santaló de la RSME 2010 y EU-Young Mobile Workshop 2011.

#### 2012

35. Speaker at the Geometric Analysis session in the international conference *II Encuentro conjunto RSME-SMM*, Torremolinos (Spain). Title: Surfaces in homogeneous manifolds.
36. Speaker at the Geometry Seminar of the University of Warwick (UK). Title: CMC spheres in three-dimensional metric Lie groups.
37. Speaker at the Stanford University Colloquium (USA). Title: Classification of constant mean curvature spheres in metric Lie groups.
38. Speaker at the Geometry Seminar of the University of Granada. Title: Superficies mínimas con crecimiento de curvatura cuadrático.

#### 2013

39. Speaker at the Geometric Analysis session in the conference *Congreso Bienal RSME 2013*, Santiago de Compostela (Spain). Title: Cheeger constant, critical mean curvature and isoperimetric problem in homogeneous 3-manifolds.
40. Speaker at the Geometry Seminar of the University of Granada. Title: Dominios isoperimétricos con gran volumen en 3-variedades homogéneas.
41. Speaker at the conference *Progress in surface theory*, Mathematics Institute Oberwolfach (Germany). Title: Isoperimetric domains with large volume in simply connected homogeneous 3-manifolds.
42. Speaker at the *Conference on submanifolds and Spin Geometry*, Institut Élie Cartan, Lorraine (France). Title: Isoperimetric domains with large volume in simply connected homogeneous 3-manifolds.
43. Speaker at the *Conference on qualitative and geometric aspects of elliptics PDEs*, Centre de Recerca Matemàtica, Barcelona (Spain). Title: Quadratic decay of curvature on minimal surfaces.

#### 2014



44. Speaker at the conference *2nd Japanese-Spanish Workshop of Differential Geometry*, Tokyo Institute of Technology (Japan). Title: Weak CMC foliations with singularities of  $\mathbb{R}^3$ .
45. Speaker at the conference *IV workshop de Geometria Diferencial*, Instituto de Matemática da Universidade Federal de Alagoas (Brazil). Title: Foliations with leaves of constant mean curvature.
46. Speaker at the *Warwick-Imperial-Cambridge Geometric Analysis Seminar*, University of Cambridge (UK). Title: CMC foliations of closed manifolds.
47. Plenary speaker at the *5th Iberian Mathematical Meeting*, University of Aveiro (Portugal). Title: Existence of foliations with leaves of constant mean curvature in compact manifolds.

#### 2015

48. Speaker at the conference *Minimal surfaces, Overdetermined problems and Geometric Analysis, ICTP-CIMPA Research School*, Santiago de Chile. Title: Existence of CMC foliations.
49. Speaker at the conference *30° Coloquio Brasileiro de Matemática*, IMPA (Rio de Janeiro, Brazil). Title: Rescaling by topology and minimal surfaces with finite topology.
50. Speaker at the conference *1st joint Meeting Brazil-Spain in Mathematics*, University of Fortaleza (Brazil). Title: Embedded minimal surfaces: a panoramic view.

#### 2016

51. Speaker at the Geometry Seminar of the University of Granada. Title: Laminaciones mínimas en  $\mathbb{R}^3$  y la conjetura de Hoffman-Meeks.
52. Speaker at the Seminar *Topics in Geometric Analysis*, jointly organized by Freie Universität Berlin, Potsdam University and the Max Planck Institute. Title: Minimal laminations in Euclidean three-space.
53. Plenary speaker at the conference *1er Coloquio de Geometría en el Sur+Este*, University of Murcia (Spain). Title: Laminaciones mínimas en  $\mathbb{R}^3$  y la conjetura de Hoffman-Meeks.
54. Speaker at the conference *Foliations 2016*, Institute of Mathematics at Bedlewo (Poland). Title: Minimal laminations and the Hoffman-Meeks Conjecture.
55. Speaker at the Geometry Seminar of the University of Granada. Title: Stable minimal surfaces in semidirect products.
56. Speaker at the round table discussion *The future of Mathematical Research in Spain*. Organized by the CEMat (Spanish Committee of Mathematics). Venue of the Royal Academy of Sciences, Madrid. December 19, 2016.

#### 2017

57. Speaker at the Workshop *Minimal surfaces: integrable systems and visualisation*, University College Cork (Ireland). Title: CMC spheres in homogeneous 3-manifolds, II.
58. Speaker at the Geometry Seminar of the Department of Mathematics at King's College London (UK). Title: CMC spheres in homogeneous 3-manifolds.
59. Speaker at the Geometry Seminar of the Department of Mathematics of the University of Santiago de Compostela (Spain). Title: Introducción a las superficies mínimas (6 hours).

### PH.D. STUDENTS

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1. María Magdalena Rodríguez Pérez, *Superficies minimales doblemente periódicas con género uno y finales paralelos*, University of Granada 2005.

2. José Miguel Manzano Prego, *Superficies con curvatura media constante en espacios homogéneos*, University of Granada 2012 (co-advised with Magdalena Rodríguez Pérez).

## POSTDOCTORAL FELLOWS SUPERVISED

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1. Filippo Morabito (PhD University of Rome, Italy), 2008.
2. Rami Younes (PhD University of Tours, France), 2008.
3. Hojoo Lee (PhD KIAS, South Korea), 2011-2012.
4. Alvaro Kruger (PhD Universidade Federal do Rio Grande do Sul, Brazil), 2013-2014.
5. Çağrı Hacıyusufoglu (University of Kac, Turkey), 2014-2015.

## CURRENT RESEARCH SUPPORT

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|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Jan 1, 2018 – Dec 31, 2020 | Title: ANALISIS GEOMETRICO (GEOMETRIC ANALYSIS)<br>Funding source: MINECO / FEDER (partially supported by the Ministry of Economy and Competitiveness of Spain and the European Union)<br>Code number: MTM2017-89677-P<br>Main researchers: Joaquín Pérez & Antonio Alarcón<br>Total number of researchers in the project: 15<br>Total budget: 139.392 € |
| Jan 1, 2015 – Dec 31, 2018 | Title: ANALISIS GEOMETRICO (GEOMETRIC ANALYSIS)<br>Funding source: MINECO / FEDER (partially supported by the Ministry of Economy and Competitiveness of Spain and the European Union)<br>Code number: MTM2014-52368-P<br>Main researcher: Joaquín Pérez<br>Total number of researchers in the project: 16<br>Total budget: 201.586 €                    |
| Sep 2016 – Aug 2019        | Title: MINIMAL SURFACES: INTEGRABLE SYSTEMS AND VISUALISATION<br>Funding source: The Leverhulme Trust (UK)<br>Main researcher: Katryn Leschke (University of Leicester, UK)<br>Total budget: £ 105.502                                                                                                                                                   |
| Jan 1, 2015 - May 31, 2017 | Title: RED ESPAÑOLA DE ANALISIS GEOMETRICO (GEOMETRIC ANALYSIS SPANISH NETWORK)<br>Founding source: MINECO (Ministry of Economy and Competitiveness, Spain)<br>Code number: MTM2014-57309-REDT<br>Main researcher: José Antonio Gálvez                                                                                                                   |

## PAST RESEARCH SUPPORT (5 YEARS)

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- Jan 1, 2012 – Dec 31, 2015 Title: ANALISIS GEOMETRICO (GEOMETRIC ANALYSIS)  
Funding source: MINECO / FEDER (partially supported by the Ministry of Economy and Competitiveness of Spain and the European Union)  
Code number: MTM2011-22547  
Main researcher: Joaquín Pérez  
Total number of researchers in the project: 17  
Total budget: 243.210 €
- Nov 2012 – Oct 2015 Title: SUPERFICIES ESTÁVEIS: ASPECTOS GEOMÉTRICOS DA RELATIVIDADE GERAL E TEORIA DE CORDAS  
Funding source: CNPq - Brazil  
Main researcher: José María Espinar (IMPA, Rio de Janeiro)  
Total budget: R\$ 30.000
- Jan 2010 – Dec 2011 Title: ANALISIS GEOMETRICO (GEOMETRIC ANALYSIS)  
Funding source: University of Granada  
Main researcher: Joaquín Pérez
- Jan 2010 – Dec 2013 Title: ANALISIS GEOMETRICO Y APLICACIONES (GEOMETRIC ANALYSIS AND APPLICATIONS)  
Funding source: Conserjería de Educación y Ciencia, Junta de Andalucía (Regional Government)  
Code number: P09-FQM 5088  
Main researcher: Antonio Ros
- Jan 1, 2007 – Dec 31, 2013 Title: ANALISIS GEOMETRICO (GEOMETRIC ANALYSIS)  
Funding source: MINECO / FEDER (partially supported by the Ministry of Economy and Competitiveness of Spain and the European Union)  
Code number: MTM2007-61775  
Main researcher: Antonio Ros  
Total number of researchers in the project: 17  
Total budget: 500.819 €

## HONORS AND GRANTS

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- 1991 | Grant of the International University Menéndez-Pelayo for the summer course *Mathematical Analysis and the problems of Continuum Physics*
- 1989 | Extraordinary award to Graduate Studies in Mathematics (Licenciatura) - University of Granada
- 1988 - 1989 | Collaboration Grant at the Department of Geometry and Topology, University of Granada

## MEMBERSHIPS

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Royal Mathematical Society of Spain