

Geometría y Topología

Áreas de conocimiento: Geometría y Topología

Director: Francisco Urbano Pérez-Aranda

Secretario: Miguel Ortega Titos

Página web: <http://geometry.ugr.es/>

Profesorado: CU: 15, PTU: 6, PTEU: 0, PDI Contratado 8

Tesis leídas

- Teoría de interpolación por Superficies mínimas.

Doctorando: Ildefonso Castro Infantes

Director: Antonio Alarcón López y Francisco J. López Fernández

Fecha de lectura: 23 de noviembre de 2018

- Superficies con curvatura media predeterminada.

Doctorando: Jesús Antonio Bueno

Director: José Antonio Gálvez y Pablo Mira Carrillo

Fecha de lectura: 29 de marzo de 2019

Grupos de Investigación.

FQM324 GEOMETRIA DIFERENCIAL Y SUS APLICACIONES

- Responsable: CEFERINO RUIZ GARRIDO

FQM325 Problemas variacionales en Geometría

- Responsable: FRANCISCO URBANO PÉREZ-ARANDA

Dirección y participación en Proyectos I+D

- 2018 'PROBLEMAS VARIACIONALES GEOMETRICOS, ANALISIS GEOMETRICO Y APLICACIONES', Competitivo, 01/01/2018-31/12/2020

Responsable MANUEL CÉSAR ROSALES LOMBARDO

- 2018 ANALISIS GEOMETRICO, Competitivo, 01/01/2018-31/12/2020

Responsable ANTONIO ALARCÓN LÓPEZ

Responsable JOAQUIN PÉREZ MUÑOZ

- 2018 Análisis Geométrico: De superficies mínimas a problemas de transición de fase, , 15/09/2018-

Investigador JOSÉ MARÍA ESPINAR GARCÍA

- 2018 Problemas Elípticos Sobre Determinados em Variedades Riemannianas, , 01/01/2018-

Investigador JOSÉ MARÍA ESPINAR GARCÍA

- 2018 Congresso Internacional de Matemáticos - ICM 2018, , 01/01/2018-31/08/2018

Participante JOSÉ MARÍA ESPINAR GARCÍA

Publicaciones en revistas

- 2019 Artículo: A characterization of the grim reaper cylinder, Journal fuer die Reine und Angewandte Mathematik, 2019, 746, 209-2034

FRANCISCO MARTIN SERRANO

- 2019 Artículo: Minimal surfaces in minimally convex domains, American Mathematical Society.

Transactions, 371, 3, 1735-1770

ANTONIO ALARCÓN LÓPEZ

FRANCISCO JOSE LOPEZ FERNANDEZ

- 2019 Artículo: Interpolation by conformal minimal surfaces and directed holomorphic curves, Analysis & PDE, 12, 2, 561-604

ANTONIO ALARCÓN LÓPEZ

ILDEFONSO CASTRO-INFANTES

- 2019 Artículo: Compact maximal hypersurfaces in globally hyperbolic spacetimes, Classical and Quantum Gravity, 36, , 015017-015030

JUAN JESÚS SALAMANCA JURADO

- 2019 Artículo: Interpolation and optimal hitting for complete minimal surfaces with finite total curvature, Calculus of Variations and Partial Differential Equations, 58, 1, Artículo 21-

ANTONIO ALARCÓN LÓPEZ

FRANCISCO JOSE LOPEZ FERNANDEZ

ILDEFONSO CASTRO-INFANTES

- 2019 Artículo en prensa: New complex analytic methods in the theory of minimal surfaces: a survey, Journal of the Australian Mathematical Society, , , -

ANTONIO ALARCÓN LÓPEZ

- 2019 Artículo: Uniqueness theorems for fully nonlinear conformal equations on subdomains of the sphere, Journal des Mathématiques Pures et Appliquées, 122, , 49-66

JOSÉ MARÍA ESPINAR GARCÍA

- 2019 Artículo: THE ABRESCH-ROSENBERG SHAPE OPERATOR AND APPLICATIONS, American Mathematical Society. Transactions, , , -

JOSÉ MARÍA ESPINAR GARCÍA

- 2019 Artículo: An extension of Calabi's correspondence between the solutions of two Bernstein problems to more general elliptic nonlinear equations, Mathematical Notes, 105, , 122-126

ALFONSO ROMERO SARABIA

JOSE ANTONIO SANCHEZ PELEGRIN

- 2019 Artículo: Stable maximal hypersurfaces in Lorentzian spacetimes, Nonlinear Analysis, Theory, Methods and Applications, 179, , 354-382

JOSE ANTONIO SANCHEZ PELEGRIN

- 2019 Artículo: From holography to the geometry of the spacetime, International Journal of Geometric Methods in Modern Physics, 16, 01, 1-11

JOSE ANTONIO SANCHEZ PELEGRIN

- 2019 Artículo: Constant Mean Curvature Spacelike Hypersurfaces in Spatially Open GRW Spacetimes, Journal of Geometric Analysis, , , -

JOSE ANTONIO SANCHEZ PELEGRIN

- 2019 Artículo: Spacelike hypersurfaces in standard static spacetimes, General Relativity and Gravitation, 51, , 1-66

JOSE ANTONIO SANCHEZ PELEGRIN

- 2019 Artículo: Spacelike Hypersurfaces in Spatially Parabolic Standard Static Spacetimes and Calabi-Bernstein-Type Problems, Mediterranean Journal of Mathematics, 16, , 34-

ALFONSO ROMERO SARABIA

JOSE ANTONIO SANCHEZ PELEGRIN

- 2019 Artículo: Structure theorems for singular minimal laminations, Journal fuer die Reine und Angewandte Mathematik, , , -

ANTONIO ROS MULERO

JOAQUIN PÉREZ MUÑOZ

- 2018 Artículo: Every conformal minimal surface in R^3 is isotopic to the real part of a holomorphic null curve, Journal fuer die Reine und Angewandte Mathematik, 740, , 77-109

ANTONIO ALARCÓN LÓPEZ

- 2018 Artículo: THE LOCAL PICTURE THEOREM ON THE SCALE OF TOPOLOGY, Journal of Differential Geometry, 109, 3, 509-565

ANTONIO ROS MULERO

JOAQUIN PÉREZ MUÑOZ

- 2018 Artículo en prensa: A construction of complete complex hypersurfaces in the ball with control on the topology, Journal fuer die Reine und Angewandte Mathematik, , , -

ANTONIO ALARCÓN LÓPEZ

FRANCISCO JOSE LOPEZ FERNANDEZ

- 2018 Artículo: Complete minimal surfaces densely lying in arbitrary domains of R^n , Geometry & Topology, 22, 1, 571-590

ANTONIO ALARCÓN LÓPEZ

ILDEFONSO CASTRO-INFANTES

- 2018 Artículo: Complete densely embedded complex lines in C^2 , Proceedings of the American Mathematical Society, 146, 3, 1059-1067

ANTONIO ALARCÓN LÓPEZ

- 2018 Artículo en prensa: New complex analytic methods in the study of non-orientable minimal surfaces in R^n , Memoirs of the American Mathematical Society, , , -

ANTONIO ALARCÓN LÓPEZ

FRANCISCO JOSE LOPEZ FERNANDEZ

- 2018 Artículo en prensa: Darboux charts around holomorphic Legendrian curves and applications, International Mathematics Research Notices, , , -

ANTONIO ALARCÓN LÓPEZ

- 2018 Artículo: Real hypersurfaces with Killing shape operator in the complex quadric, Mediterranean Journal of Mathematics, 15:6, , -

JUAN DE DIOS PÉREZ JIMÉNEZ

- 2018 Artículo: An analytical approach to the external force-free motion of pendulums on surfaces of constant curvature, Journal of Geometry and Physics, 129, , 200-207

JUAN JESÚS SALAMANCA JURADO

- 2018 Artículo: Invariant singular minimal surfaces, Annals of Global Analysis and Geometry, 53, 4, 521-541

RAFAEL LOPEZ CAMINO

- 2018 Artículo: On the duality between rotational minimal surfaces and maximal surfaces, Journal of Mathematical Analysis and Applications, 458, 1, 345-360

RAFAEL LOPEZ CAMINO

- 2018 Artículo: Lie derivatives and Ricci tensor on real hypersurfaces in complex two-plane Grassmannians, Canadian Mathematical Bulletin, 61, 3, 543-552

JUAN DE DIOS PÉREZ JIMÉNEZ

- 2018 Artículo: Global bifurcation of solutions of the mean curvature spacelike equation in certain Friedmann-Lemaître-Robertson-Walker spacetimes, Journal of Differential Equations, 264, 12, 7242-7269

ALFONSO ROMERO SARABIA

- 2018 Artículo: Extremal domains on Hadamard manifolds, Journal of Differential Equations, , , -

JOSÉ MARÍA ESPINAR GARCÍA

- 2018 Artículo: Characterization of f-extremal disks, Journal of Differential Equations, , , -

JOSÉ MARÍA ESPINAR GARCÍA

- 2018 Artículo en prensa: Complex curves in pseudoconvex Runge domains containing discrete subsets, Journal d'Analyse Mathématique, , , -

ANTONIO ALARCÓN LÓPEZ

- 2018 Artículo: Curves in the Lorentz-Minkowski plane: elasticae, catenaries and grim-reapers., Open Mathematics, 16, 1, 747-766

ILDEFONSO CASTRO-INFANTES

- 2018 Artículo: Translating solitons in Riemannian products, Journal of Differential Equations, , , -

FRANCISCO MARTIN SERRANO

- 2018 Artículo: Translation surfaces of linear Weingarten type, Universitatea "Al. I. Cuza" din Iasi. Analele Stiintifice. Matematica, 64, , 151-160

JESÚS ANTONIO BUENO LINARES

RAFAEL LOPEZ CAMINO

- 2018 Artículo: Explicit Björling surfaces with prescribed geometry, Michigan Mathematical Journal, 67, , 561-584

RAFAEL LOPEZ CAMINO

- 2018 Artículo: Solutions of the Björling problem for timelike surfaces in the Lorentz-Minkowski space, Turkish Journal of Mathematics, 42, , 2186-2201

RAFAEL LOPEZ CAMINO

- 2018 Artículo: The one dimensional case of the singular minimal surfaces with density, Geometriae Dedicata, , , -

RAFAEL LOPEZ CAMINO

- 2018 Artículo: Compact λ -translating solitons with boundary, Mediterranean Journal of Mathematics, , , -

RAFAEL LOPEZ CAMINO

- 2018 Artículo: Some geometric properties of translating solitons in Euclidean space, Journal Of Geometry, 109, , -

RAFAEL LOPEZ CAMINO

- 2018 Artículo: Invariant surfaces in Euclidean space with a log-linear density, Advances in Mathematics, 339, , 285-309

RAFAEL LOPEZ CAMINO

- 2018 Artículo: The Dirichlet problem for the α -singular minimal surface equation, Archiv der Mathematik, , , -

RAFAEL LOPEZ CAMINO

- 2018 Artículo: The Dirichlet problem on a strip for the α -translating soliton equation, Comptes Rendus de l'Académie des Sciences. Série I, Mathématique, 356, , 1179-1187

RAFAEL LOPEZ CAMINO

- 2018 Artículo: Uniqueness of critical points and maximum principles of the singular minimal surface equation, Journal of Differential Equations, , , -

RAFAEL LOPEZ CAMINO

Contribuciones en congresos

- 2019 Ponencia en Congreso: Characterization of f-extremal disk, Geometry and PDE in front of the Alhambra, 22/01/2019, Granada, Congreso

JOSÉ MARÍA ESPINAR GARCÍA

- 2018 Ponencia en Congreso: From the minimal to the maximal surface equation in certain ambient manifolds, First BYMAT Conference: Bringing Young Mathematicians Together, 07/05/2018, ICMAT, Campus de Cantoblanco, Madrid, Congreso

JOSE ANTONIO SANCHEZ PELEGRIN

- 2018 Sesión plenaria en Congreso: Experiments with soap films and surfaces with constant mean curvature, 4th Croatian Conference on Geometry and Graphics, 02/09/2018, Vodnjan, Croacia, Congreso

RAFAEL LOPEZ CAMINO

- 2018 Sesión no plenaria en Congreso: Fully nonlinear version of the Min-Oo conjecture, VII Iberoamerican Congress on Geometry, 22/01/2018, Valladolid, Spain, Congreso
JOSÉ MARÍA ESPINAR GARCÍA
- 2018 Conferencias impartidas en Congreso: Complete complex hypersurfaces in the ball, Stein Manifolds and Holomorphic Mappings, 17/09/2018, Liubliana, Eslovenia, Congreso
ANTONIO ALARCÓN LÓPEZ
- 2018 Conferencias impartidas en Congreso: Hopf Real Hypersurfaces in the Indefinite Complex Projective Space, IX International Meeting on Lorentzian Geometry 17.06.2018 - 24.06.2018, 17/06/2018, Banach Center, Varsovia, Polonia, Congreso
MIGUEL ORTEGA TITOS
- 2018 Conferencias impartidas en Congreso: Hopf Real Hypersurfaces in the Indefinite Complex Projective Space, Joint Meeting of the Korean Mathematical Society and the German Mathetical Society, 03/10/2018, Seúl, Corea, Congreso
MIGUEL ORTEGA TITOS
- 2018 Conferencia Congreso no publicada: A geometric partial differential equation, International Conference on Nonlinear Analysis and Boundary Value Problems, 04/09/2018, - Santiago de Compostela (A Coruña), España, Congreso
FRANCISCO MILÁN LÓPEZ
- 2018 Comunicación en congreso: Curves in Lorentz-Minkowski plane with prescribed curvature, IX International Meeting on Lorentzian Geometry, 17/06/2018, Warsaw, Congreso
ILDEFONSO CASTRO-INFANTES
- 2018 Comunicación en congreso: Classification of spheres with constant mean curvature in homogeneous 3-manifolds, 7th Iberoamerican Congress of Geometry, 22/01/2018, Valladolid,
JOAQUIN PÉREZ MUÑOZ
- 2018 Comunicación en congreso: Recent advances in minimal surface theory in R^3 , Modern Trends in Differential Geometry, 23/07/2018, Sao Paulo, Brasil, Congreso
JOAQUIN PÉREZ MUÑOZ
- 2018 Conferencias impartidas en Seminario: Superficies mínimas: viejos problemas y nuevos avances, Seminario INSEGTO, 17/10/2018, Málaga, Seminario
JOAQUIN PÉREZ MUÑOZ
- 2018 Conferencias impartidas en Congreso: The embedded Calabi-Yau problem for minimal surfaces of finite genus, Variational Methods in Geometry, 05/11/2018, Princeton, Congreso
JOAQUIN PÉREZ MUÑOZ
- 2018 Conferencias impartidas en Seminario: The embedded Calabi-Yau conjecture for minimal surfaces of finite genus, Geometric Analysis Seminar, MIT, 14/11/2018, Boston, EEUU, Seminario
JOAQUIN PÉREZ MUÑOZ
- 2018 Conferencias impartidas en Jornada: Superficies mínimas en el espacio euclídeo, IV Jornadas Doctorales del Programa de Doctorado en Matemáticas, 20/11/2018, Cádiz, Jornada
JOAQUIN PÉREZ MUÑOZ
- 2018 Conferencia Congreso no publicada: Complete complex submanifolds in the ball, Mapping problems and complex manifolds in projective spaces, 03/12/2018, Oslo, Noruega, Congreso
ANTONIO ALARCÓN LÓPEZ
- 2018 Ponencia en Congreso: Extending Calabi's duality, IX International Meeting on Lorentzian Geometry, 17/06/2018, Academia Polaca de las Ciencias, Polskiej Akademi Nauk Warszawa, Varsovia (Polonia), Congreso
JOSE ANTONIO SANCHEZ PELEGRIN
- 2018 Ponencia en Congreso: A new characterization of the spacelike slices in spatially closed Generalized Robertson-Walker spacetimes, II Joint Meeting Spain-Brazil in Mathematics RSME's SEMA's SBM's SBMAC, 11/12/2018, Cádiz, Congreso
JOSE ANTONIO SANCHEZ PELEGRIN