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PUBLICATIONS IN JOURNALS OR BOOKS

- Manuel Barros, Angel Ferrández and Oscar J. Garay, *Extremal curves of the total curvature in homogeneous 3-spaces* J. Math. Anal. Appl. 431 (2015), 342-364
- Manuel Barros and Angel Ferrández, *On the energy density of helical proteins* J. Math. Biol. 69 (2014), 1801-1813
- Manuel Barros, Angel Ferrández and Oscar J. Garay, *Equivariant Willmore surfaces in conformal homogeneous 3-spaces* J. Math. Anal. Appl. 409 (2014), 459-477
- Manuel Barros and Angel Ferrández, *Addendum to “New classical string solutions in AdS_3 through null scrolls”* Class. Quantum Grav. 30 (2013) 179401 (3 pages)
- Manuel Barros and Angel Ferrández, *New classical string solutions in AdS_3 through null scrolls* Class. Quantum Grav. 30 (2013) 115003 (19 pages)
- Manuel Barros and Angel Ferrández, *How big is the family of stationary null scrolls?* J. Geom. Phys. 64 (2013), 54-60
- Manuel Barros and Angel Ferrández, *Null scrolls as fluctuating surfaces: A new simple way to construct extrinsic string solutions* J. High Energy Phys. 05 (2012), 068 (19 pages)
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- Manuel Barros and Angel Ferrández, *Willmore energy estimates in conformal Berger spheres*, Chaos, Solitons & Fractals 44 (2011), 515–521
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- Angel Ferrández, *Variational problems on curves* Topics in modern differential geometry. Simon Stevin Institute lectures 2008-2009 Series: Simon Stevin Transactions on Geometry, Volume 1 (2010), pp. 29-46, Eds.: S. Haesen and L. Verstraelen. Published by Simon Stevin Institute for Geometry, Tilburg (The Netherlands). ISBN: 978 - 90 - 815185 - 1 - 2.
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- Manuel Barros and Angel Ferrández, *A conformal variational approach for helices in Nature* J. Math. Phys. 50 (2009), 103529–103548
- Angel Ferrández, Angel Giménez and Pascual Lucas, *Relativistic particles and the geometry of 4D null curves* J. Geom. Phys. 57 (2007), 2124–2135

- Angel Ferrández, Julio Guerrero, Miguel A. Javaloyes and Pascual Lucas, *Particles with curvature and torsion in 3-dimensional pseudo-riemannian space forms* J. Geom. Phys. 56 (2006), 1666–1687
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- Manuel Barros, Angel Ferrández, Miguel A. Javaloyes and Pascual Lucas, *Geometry of relativistic particles with torsion*, Int. J. Mod. Phys. A Vol. 19, No. 11 (2004), 1737-1745
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- Luis J. Alías, Angel Ferrández and Pascual Lucas, *Surfaces in the 3-dimensional Lorentz-Minkowski space satisfying $\Delta x = Ax + B$* , Pacific J. Math. 156 (1992), 201–208
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- Angel Ferrández and Pascual Lucas, *Null finite type hypersurfaces in space forms*, Kodai Math. J. 14 (1991), 406–419
- Angel Ferrández, Oscar J. Garay and Pascual Lucas, *On a certain class of conformally flat Euclidean hypersurfaces*, Lecture Notes in Math., No. 1481 (1991)
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- Angel Ferrández and Antonio Martínez Naveira, *Normal forms of the NK-operators*, Czechoslovak Math. J. 32 (107), (1982), 404–417

TALKS GIVEN IN CONFERENCES OR WORKSHOPS

- *Extremal curves of the total curvature in homogeneous 3-spaces*, Invited address, Congreso de la Real Sociedad Matemática Española, Granada, 2-6 de Febrero, 2015
- *Null scrolls, un fecundo manantial de ejemplos*, Invited address, IX Encuentro Andaluz de Geometría, <http://digap.ugr.es/descargas/>, Jaén, May 1, 2012
- *¿Importa la Ciencia?*, Invited address, VIII Jornadas de Historia de la Ciencia, Murcia, 07 Feb-01 March, 2011
- *Una visión intuitiva de la Geometría Diferencial*, Invited address, International Meeting on Differential Geometry, <http://www.uco.es/geometria/eventos-encuentro-inicio.html>, Córdoba, 15-18 Nov., 2010
- *Modelos geométricos para entender las hélices de la Naturaleza*, Invited address, Sesión Científica homenaje a Angel Montesinos con motivo de su jubilación, Valencia, 25 de septiembre, 2009
- *Variational problems on curves*, Two invited addresses, International Research School “Differential Geometry and Symmetry”, Murcia, March 9-18, 2009
- *Some variational problems involving Lancret curves*, Invited address, Analysis and Geometry Day, <http://gigda.ugr.es/glg/agdia.htm>, Granada, June 16, 2008
- *Geometry and Topology applied to DNA*, Invited address, International Seminar on Applied Geometry in Andalusia, September 4-8, <http://gigda.ugr.es/isaga06/>, Granada, 2006
- *Geometry and Physics of lightlike curves*, Invited address, First Joint Meeting RSME-AMS, Sevilla, June 18-21, 2003
- *Modelos geométricos de partículas sobre curvas nulas*, Communication, XI Encuentro de Otoño de Geometría y Física, Oviedo, 2002
- *Degenerate curves in pseudo-Euclidean spaces of index 2*, Communication, THIRD INTERNATIONAL CONFERENCE ON GEOMETRY, INTEGRABILITY AND QUANTIZATION, 14–23 junio, Degenerate curves in pseudo-Euclidean spaces of index 2, Varna (Bulgaria), 2001
- *A Tour on the Life and Work of A. M. Naveira*, Invited address, Differential Geometry, Valencia 2001, July 8–14, Proceedings of the International Conference held to honour the 60 Birthday of A. M. Naveira, Valencia, Spain, 2001
- *Null helices and degenerate curves in Lorentzian space forms*, Communication, Differential Geometry, Valencia 2001, July 8–14, Proceedings of the International Conference held to honour the 60 Birthday of A. M. Naveira, Valencia, Spain, 2001
- *Hipersuperficies luminosas en espacios lorentzianos*, Communication, Geometría de Lorentz. Benalmádena 2001, November 14-16, Hipersuperficies luminosas en espacios lorentzianos, Benalmádena (Málaga), 2001
- *Characterization of null curves in Lorentz-Minkowski spaces*, Communication, IX Fall Workshop on Geometry and Physics, July 6-8, Characterization of null curves in Lorentz-Minkowski spaces, Vilanova i la Geltrú, 2000

- *Submanifolds with Indefinite Metrics. Some Characterization Problems*, Invited address, Workshop on Recent Topics on Differential Geometry, Public. Dpto. Geometría y Topología, Univ. de Santiago, Santiago de Compostela, July 16-19, 1997
- *Riemannian versus Lorentzian Submanifolds. Some Open Problems*, Invited address Workshop on Recent Topics on Differential Geometry, Public. Dpto. Geometría y Topología, Univ. de Santiago, Santiago de Compostela, July 16-19, 1997
- *Classification of certain semi-Riemannian constant mean curvature surfaces*, Communication, Simposio “Geometry and Topology of Submanifolds” “Geometry and Topology of Submanifolds”, Vol. VII, pp. 132–135, 1994, World Scientific Publ. Co., Lovaina (Bélgica), 1994
- *Surfaces in Lorentzian space forms satisfying the condition $\Delta x = Ax + B$* , Communication, Simposio “Geometry and Topology of Submanifolds”, “Geometry and Topology of Submanifolds”, Vol. VI, pp. 3–15, 1993, World Scientific Publ. Co., Lovaina (Bélgica), 1993
- *On a certain class of conformally flat Euclidean hypersurfaces*, Communication, Global Differential Geometry and Global Analysis, Lecture Notes in Math., No. 1481, 48–54, Springer, Berlín (Alemania), 1991
- *Superficies regladas de tipo finito*, Communication, XV Jornadas Luso-Españolas de Matemáticas, Proc. XVth Portuguese-Spanish Conference on Math., vol. III (1991), 167–172, Evora (Portugal), 1990

RELEVANT RESEARCH POSITIONS

- Referee of the main journals in MATHEMATICS and PHYSICS included in ISI journals.
- Member of the Editorial Board of International Electronic Journal of Geometry (ISSN: 1307-5624), The Open Mathematics Journal (ISSN: 1874-1177), ISRN Geometry (ISSN: 2090-6307) and Journal of Mathematical Analysis (ISSN: 2217-3412).
- Vicechancellor for Research of the University of Murcia (years 1998 and 1999).
- Vicechancellor for Innovation of the University of Murcia (years 2000 and 2001).
- President of the Academy of Sciences of Murcia Region (2002-2010).