Luis J Alias

List of Publications by Year in descending order

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108 papers	1,832 citations	331670 21 h-index	330143 37 g-index
108 all docs	108 docs citations	108 times ranked	310 citing authors

#	Article	IF	Citations
1	Uniqueness of complete spacelike hypersurfaces of constant mean curvature in generalized Robertson-Walker spacetimes. General Relativity and Gravitation, 1995, 27, 71-84.	2.0	223
2	Maximum Principles and Geometric Applications. Springer Monographs in Mathematics, 2016, , .	0.2	94
3	Uniqueness of spacelike hypersurfaces with constant higher order mean curvature in generalized Robertsonâ€“Walker spacetimes. Mathematical Proceedings of the Cambridge Philosophical Society, 2007, 143, 703-729.	0.4	80
4	INTEGRAL FORMULAE FOR SPACELIKE HYPERSURFACES IN CONFORMALLY STATIONARY SPACETIMES AND APPLICATIONS. Proceedings of the Edinburgh Mathematical Society, 2003, 46, 465-488.	0.3	64
5	Spacelike hypersurfaces of constant mean curvature and Calabi-Bernstein type problems. Tohoku Mathematical Journal, 1997, 49, 337.	0.2	63
6	An extension of Takahashi theorem for the linearized operators of the higher order mean curvatures. Geometriae Dedicata, 2007, 121, 113-127.	0.3	48
7	Calabiâ€“Bernstein results for maximal surfaces in Lorentzian product spaces. Journal of Geometry and Physics, 2009, 59, 620-631.	1.4	47
8	CONSTANT MEAN CURVATURE HYPERSURFACES IN WARPED PRODUCT SPACES. Proceedings of the Edinburgh Mathematical Society, 2007, 50, 511-526.	0.3	45
9	Spacelike hypersurfaces of constant mean curvature in certain spacetimes. Nonlinear Analysis: Theory, Methods & Applications, 1997, 30, 655-661.	1.1	44
10	CONSTANT HIGHER-ORDER MEAN CURVATURE HYPERSURFACES IN RIEMANNIAN SPACES. Journal of the Institute of Mathematics of Jussieu, 2006, 5, 527.	0.7	44
11	Hypersurfaces of constant higher order mean curvature in warped products. Transactions of the American Mathematical Society, 2013, 365, 591-621.	0.9	44
12	BjÃ¶rling problem for maximal surfaces in Lorentzâ€“Minkowski space. Mathematical Proceedings of the Cambridge Philosophical Society, 2003, 134, 289-316.	0.4	43
13	A Bernstein-type theorem for Riemannian manifolds with a Killing field. Annals of Global Analysis and Geometry, 2007, 31, 363-373.	0.6	40
14	Integral formulas for compact space-like hypersurfaces in de Sitter space: Applications to the case of constant higher order mean curvature. Journal of Geometry and Physics, 1999, 31, 195-208.	1.4	39
15	ON THE GAUSSIAN CURVATURE OF MAXIMAL SURFACES AND THE CALABIâ€“BERNSTEIN THEOREM. Bulletin of the London Mathematical Society, 2001, 33, 454-458.	0.8	34
16	Spacelike hypersurfaces with constant mean curvature in the steady state space. Proceedings of the American Mathematical Society, 2008, 137, 711-721.	0.8	32
17	Spacelike hypersurfaces of constant higher order mean curvature in generalized Robertsonâ€“Walker spacetimes. Mathematical Proceedings of the Cambridge Philosophical Society, 2012, 152, 365-383.	0.4	32
18	A maximum principle for hypersurfaces with constant scalar curvature and applications. Annals of Global Analysis and Geometry, 2012, 41, 307-320.	0.6	31

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19	On the scalar curvature of constant mean curvature hypersurfaces in space forms. Journal of Mathematical Analysis and Applications, 2010, 363, 579-587.	1.0	28
20	The mean curvature of cylindrically bounded submanifolds. Mathematische Annalen, 2009, 345, 367-376.	1.4	25
21	On the curvatures of bounded complete spacelike hypersurfaces in the Lorentz-Minkowski space. Manuscripta Mathematica, 2000, 101, 401-413.	0.6	24
22	Integral formulas for compact spaceliken-submanifolds in de Sitter spaces applications to the parallel mean curvature vector case. Manuscripta Mathematica, 1995, 87, 405-416.	0.6	23
23	A maximum principle at infinity with applications to geometric vector fields. Journal of Mathematical Analysis and Applications, 2019, 474, 242-247.	1.0	22
24	Constant mean curvature spacelike hypersurfaces with spherical boundary in the Lorentz-Minkowski space. Journal of Geometry and Physics, 1998, 28, 85-93.	1.4	21
25	Stable constant mean curvature surfaces with circular boundary. Proceedings of the American Mathematical Society, 1999, 127, 1195-1200.	0.8	20
26	Mean Curvature Flow Solitons in the Presence of Conformal Vector Fields. Journal of Geometric Analysis, 2020, 30, 1466-1529.	1.0	20
27	A spectral characterization of the $H(r)$-torus by the first stability eigenvalue. Proceedings of the American Mathematical Society, 2004, 133, 875-884.	0.8	19
28	Submanifolds in pseudo-Euclidean spaces satisfying the condition Î”x=Ax+B. Geometriae Dedicata, 1992, 42, 345-354.	0.3	18
29	A duality result between the minimal surface equation and the maximal surface equation. Anais Da Academia Brasileira De Ciencias, 2001, 73, 161-164.	0.8	18
30	On the first eigenvalue of the linearized operator of the higher order mean curvature for closed hypersurfaces in space forms. Illinois Journal of Mathematics, 2004, 48, .	0.1	18
31	Curvature properties of zero mean curvature surfaces in four-dimensional Lorentzian space forms. Mathematical Proceedings of the Cambridge Philosophical Society, 1998, 124, 315-327.	0.4	16
32	Zero mean curvature surfaces with nonâ€“negative curvature in flat Lorentzian 4â€“spaces. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 1999, 455, 631-636.	2.1	16
33	Parabolicity of maximal surfaces in Lorentzian product spaces. Mathematische Zeitschrift, 2011, 267, 453-464.	0.9	15
34	A general form of the weak maximum principle and some applications. Revista Matematica Iberoamericana, 2013, 29, 1437-1476.	0.9	15
35	On the volume and the Gauss map image of spacelike hypersurfaces in de Sitter space. Proceedings of the American Mathematical Society, 2002, 130, 1145-1151.	0.8	15
36	On the stability index of hypersurfaces with constant mean curvature in spheres. Proceedings of the American Mathematical Society, 2007, 135, 3685-3694.	0.8	15

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37	A New Proof of Liebmann Classical Rigidity Theorem for Surfaces in Space Forms. Rocky Mountain Journal of Mathematics, 2005, 35, .	0.4	15
38	On the Gaussian curvature of maximal surfaces in n -dimensional generalized Robertson - Walker spacetimes. Classical and Quantum Gravity, 1996, 13, 3211-3219.	4.0	14
39	Compact spacelike surfaces with constant mean curvature in the Lorentz-Minkowski 3-space. Tohoku Mathematical Journal, 1998, 50, 491.	0.2	14
40	Biharmonic hypersurfaces in complete Riemannian manifolds. Pacific Journal of Mathematics, 2013, 263, 1-12.	0.5	14
41	Hadamard-type theorems for hypersurfaces in hyperbolic spaces. Differential Geometry and Its Applications, 2006, 24, 492-502.	0.5	13
42	A maximum principle related to volume growth and applications. Annali Di Matematica Pura Ed Applicata, 2021, 200, 1637-1650.	1.0	13
43	Spacelike submanifolds with parallel mean curvature in pseudo-Riemannian space forms. Tsukuba Journal of Mathematics, 1997, 21, 169.	0.1	12
44	A Characterization of Quadric Constant Mean Curvature Hypersurfaces of Spheres. Journal of Geometric Analysis, 2008, 18, 687.	1.0	12
45	An estimate for the scalar curvature of constant mean curvature hypersurfaces in space forms. Geometriae Dedicata, 2012, 156, 31-47.	0.3	12
46	Bifurcation of Constant Mean Curvature Tori in Euclidean Spheres. Journal of Geometric Analysis, 2013, 23, 677-708.	1.0	12
47	Deformations of stationary surfaces. Classical and Quantum Gravity, 1997, 14, 2107-2111.	4.0	11
48	Clay minerals and soil fertility loss on Petric Calcisol under a semiarid Mediterranean environment. Soil and Tillage Research, 1997, 10, 9-19.	0.4	11
49	Uniqueness of entire graphs in warped products. Journal of Mathematical Analysis and Applications, 2015, 430, 60-75.	1.0	11
50	Spacelike surfaces of constant mean curvature with free boundary in the Minkowski space. Classical and Quantum Gravity, 1999, 16, 1323-1331.	4.0	10
51	Hypersurfaces with constant mean curvature and two principal curvatures in <img id="_x0000_i1025" src="../../../../img/revistas/aabc/v76n3/a03img01.gif" align=absbottom>n+1. Anais Da Academia Brasileira De Ciencias, 2004, 76, 489-497.	0.8	10
52	Higher order mean curvature estimates for bounded complete hypersurfaces. Nonlinear Analysis: Theory, Methods & Applications, 2013, 84, 73-83.	1.1	10
53	UNIQUENESS OF SPACELIKE HYPERSURFACES WITH CONSTANT MEAN CURVATURE IN GENERALIZED ROBERTSON-WALKER SPACETIMES. , 2002, , .		10
54	Spacelike hypersurfaces with constant higher order mean curvature in Minkowski spaceâ€“time. Journal of Geometry and Physics, 2002, 41, 359-375.	1.4	9

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55	The Dirichlet problem for constant mean curvature surfaces in Heisenberg space. Calculus of Variations and Partial Differential Equations, 2007, 30, 513-522.	1.7	9
56	An estimate for the sectional curvature of cylindrically bounded submanifolds. Transactions of the American Mathematical Society, 2012, 364, 3513-3528.	0.9	9
57	On the rigidity of complete spacelike hypersurfaces immersed in a generalized Robertson-Walker spacetime. Bulletin of the Brazilian Mathematical Society, 2013, 44, 195-217.	0.8	9
58	Integral Inequalities for Compact Hypersurfaces with Constant Scalar Curvature in the Euclidean Sphere. Mediterranean Journal of Mathematics, 2020, 17, 1.	0.8	9
59	A Schwarz-type formula for minimal surfaces in Euclidean space. Comptes Rendus Mathematique, 2002, 334, 389-394.	0.3	8
60	HYPERSURFACES IN SPACE FORMS SATISFYING THE CONDITION $L_k x = Ax + b$. Taiwanese Journal of Mathematics, 2010, 14, .	0.4	8
61	Geometric analysis of Lorentzian distance function on spacelike hypersurfaces. Transactions of the American Mathematical Society, 2010, 362, 5083-5083.	0.9	8
62	Hypersurfaces with constant higher order mean curvature in Euclidean space. Geometriae Dedicata, 2016, 182, 117-131.	0.3	8
63	Hypersurfaces in space forms satisfying the condition Î”?=??+?. Transactions of the American Mathematical Society, 1995, 347, 1793-1801.	0.9	7
64	Constant mean curvature graphs in a class of warped product spaces. Geometriae Dedicata, 2008, 131, 173-179.	0.3	7
65	Comparison theory of Lorentzian distance with applications to spacelike hypersurfaces. , 2009, , .		7
66	On the manifold structure of the set of unparameterized embeddings with low regularity. Bulletin of the Brazilian Mathematical Society, 2011, 42, 171-183.	0.8	7
67	On the First Stability Eigenvalue of Constant Mean Curvature Surfaces Into Homogeneous 3-Manifolds. Mediterranean Journal of Mathematics, 2015, 12, 147-158.	0.8	7
68	Rigidity of linear Weingarten hypersurfaces in locally symmetric manifolds. Mathematische Nachrichten, 2016, 289, 1309-1324.	0.8	7
69	Marginally trapped submanifolds in generalized Robertsonâ€“Walker spacetimes. General Relativity and Gravitation, 2017, 49, 1.	2.0	7
70	Characterizations of Spacelike Submanifolds with Constant Scalar Curvature in the de Sitter Space. Mediterranean Journal of Mathematics, 2018, 15, 1.	0.8	7
71	A new open form of the weak maximum principle and geometric applications. Communications in Analysis and Geometry, 2016, 24, 1-43.	0.4	7
72	On the Ricci Curvature of Compact Spacelike Hypersurfaces in de Sitter Space. Geometriae Dedicata, 1999, 77, 297-304.	0.3	6

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73	Weak maximum principles and geometric estimates for spacelike hypersurfaces in generalized Robertsonâ€“Walker spacetimes. Nonlinear Analysis: Theory, Methods & Applications, 2015, 129, 119-142.	1.1	6
74	Hypersurfaces with constant scalar curvature in space forms. Differential Geometry and Its Applications, 2018, 58, 65-82.	0.5	6
75	Remarks on hypersurfaces with constant higher order mean curvature in Euclidean space. Geometriae Dedicata, 2019, 199, 273-280.	0.3	6
76	Hypersurfaces in Space Forms Satisfying the Condition Î”x = Ax + B. Transactions of the American Mathematical Society, 1995, 347, 1793.	0.9	5
77	On the Curvatures of Complete Spacelike Hypersurfaces in de Sitter Space. Geometriae Dedicata, 2000, 80, 51-58.	0.3	5
78	Spacelike Hypersurfaces with Constant Scalar Curvature in the Lorentzâ€“Minkowski Space. Annals of Global Analysis and Geometry, 2000, 18, 75-84.	0.6	5
79	Curvature properties of compact spacelike hypersurfaces in de Sitter space. Differential Geometry and Its Applications, 2001, 14, 137-149.	0.5	5
80	Trapped submanifolds contained into a null hypersurface of de Sitter spacetime. Communications in Contemporary Mathematics, 2018, 20, 1750059.	1.2	5
81	Codimension two spacelike submanifolds of the Lorentz-Minkowski spacetime into the light cone. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2019, 149, 1523-1553.	1.2	5
82	Remarks on compact spacelike hypersurfaces in de Sitter space with constant higher order mean curvature. Journal of Geometry and Physics, 2001, 39, 46-50.	1.4	4
83	A characterization of Clifford tori with constant scalar curvature one by the first stability eigenvalue. Bulletin of the Brazilian Mathematical Society, 2004, 35, 165-175.	0.8	4
84	On the scalar curvature of hypersurfaces in spaces with a Killing field. Advances in Geometry, 2010, 10, 487-503.	0.4	4
85	An integral inequality for compact maximal surfaces inn-dimensional de Sitter space and its applications. Annals of Global Analysis and Geometry, 1995, 13, 3-8.	0.6	3
86	Stable constant mean curvature hypersurfaces in the real projective space. Manuscripta Mathematica, 2006, 121, 329-338.	0.6	3
87	A Hilbert-type theorem for spacelike surfaces with constant Gaussian curvature in â„2 Ã— â„1. Bulletin of the Brazilian Mathematical Society, 2009, 40, 465-478.	0.8	3
88	Curvature Estimates for Submanifolds in Warped Products. Results in Mathematics, 2011, 60, 265-286.	0.8	3
89	Geometric analysis of the Lorentzian distance function on trapped submanifolds. Classical and Quantum Gravity, 2016, 33, 125007.	4.0	3
90	Existence and Topological Uniqueness of Compact CMC Hypersurfaces with Boundary in Hyperbolic Space. Journal of Geometric Analysis, 2013, 23, 2177-2187.	1.0	2

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91	Erratum to â€œSpacelike hypersurfaces of constant higher order mean curvature in generalized Robertsonâ€“Walker spacetimesâ€. Math. Proc. Camb. Phil. Soc. (2012), 152, 365â€“383.. Mathematical Proceedings of the Cambridge Philosophical Society, 2013, 155, 375-377.	0.4	2
92	A New Approach to Minimal and Maximal Hypersurfaces in Product Spaces. Results in Mathematics, 2019, 74, 1.	0.8	2
93	On the area of constant mean curvature discs and annuli with circular boundaries. Mathematische Zeitschrift, 2001, 237, 585-599.	0.9	1
94	Addendum to â€œSpacelike hypersurfaces with constant higher order mean curvature in the Minkowski spaceâ€“timeâ€. Journal of Geometry and Physics, 2002, 41, 376-379.	1.4	1
95	An integral formula for compact hypersurfaces in space forms and its applications. Journal of the Australian Mathematical Society, 2003, 74, 239-248.	0.4	1
96	A Further Characterization Of Ellipsoids. Resultate Der Mathematik, 2005, 48, 1-8.	0.2	1
97	On the scarcity of non-totally geodesic complete spacelike hypersurfaces of constant mean curvature in a Lie group with bi-invariant Lorentzian metric. Differential Geometry and Its Applications, 2017, 51, 49-64.	0.5	1
98	Stability of mean curvature flow solitons in warped product spaces. Revista Matematica Complutense, 2022, 35, 287-309.	1.2	1
99	HYPERSURFACES WITH CONSTANT HIGHER ORDER MEAN CURVATURE IN EUCLIDEAN SPACE. , 2002, , .		0
100	Generalized Weierstrass representation for surfaces in Heisenberg spaces. Differential Geometry and Its Applications, 2012, 30, 1-12.	0.5	0
101	Miscellany Results for Submanifolds. Springer Monographs in Mathematics, 2016, , 271-324.	0.2	0
102	Applications to Hypersurfaces. Springer Monographs in Mathematics, 2016, , 325-383.	0.2	0
103	Hypersurfaces in Warped Products. Springer Monographs in Mathematics, 2016, , 385-441.	0.2	0
104	Spacelike Hypersurfaces in Lorentzian Spacetimes. Springer Monographs in Mathematics, 2016, , 499-552.	0.2	0
105	A local estimate for maximal surfaces in Lorentzian product spaces. Matematica Contemporanea, 2008, 34, .	0.0	0
106	Calabiâ€“Bernstein Results and Parabolicity of Maximal Surfaces in Lorentzian Product Spaces. Springer Proceedings in Mathematics and Statistics, 2012, , 49-85.	0.2	0
107	Spacelike Hypersurfaces in Conformally Stationary Spacetimes. RSME Springer Series, 2020, , 161-174.	0.1	0
108	The principal curvature theorem and its applications to constant mean curvature hypersurfaces in Euclidean space. Matematica Contemporanea, 2022, 49, .	0.0	0