

JosÃ© L LÃ³pez

List of Publications by Year in descending order

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Version: 2024-02-01

101
papers

714
citations

687220

13
h-index

752573

20
g-index

102
all docs

102
docs citations

102
times ranked

296
citing authors

#	ARTICLE	IF	CITATIONS
1	Uniform approximations of the first symmetric elliptic integral in terms of elementary functions. <i>Revista De La Real Academia De Ciencias Exactas, Fisicas Y Naturales - Serie A: Matematicas</i> , 2022, 116, 1.	0.6	1
2	The swallowtail integral in the highly oscillatory region III. <i>Complex Variables and Elliptic Equations</i> , 2022, 67, 1262-1272.	0.4	2
3	An Analytic Representation of the Second Symmetric Standard Elliptic Integral in Terms of Elementary Functions. <i>Results in Mathematics</i> , 2022, 77, .	0.4	0
4	Uniform convergent expansions of integral transforms. <i>Mathematics of Computation</i> , 2021, 90, 1357-1380.	1.1	4
5	New recurrence relations for several classical families of polynomials. <i>Journal of Difference Equations and Applications</i> , 2021, 27, 1512-1523.	0.7	0
6	Uniformly convergent expansions for the generalized hypergeometric functions ${}_pF_q$ and ${}_pF_p$. <i>Integral Transforms and Special Functions</i> , 2020, 31, 820-837.	0.8	1
7	Analysis of singular one-dimensional linear boundary value problems using two-point Taylor expansions. <i>Electronic Journal of Qualitative Theory of Differential Equations</i> , 2020, , 1-21.	0.2	3
8	A note on the asymptotic expansion of the Lerch's transcendent. <i>Integral Transforms and Special Functions</i> , 2019, 30, 844-855.	0.8	3
9	The use of two-point Taylor expansions in singular one-dimensional boundary value problems I. <i>Journal of Mathematical Analysis and Applications</i> , 2018, 463, 708-725.	0.5	1
10	Convergent expansions of the incomplete gamma functions in terms of elementary functions. <i>Analysis and Applications</i> , 2018, 16, 435-448.	1.2	9
11	Convergent expansions of the Bessel functions in terms of elementary functions. <i>Advances in Computational Mathematics</i> , 2018, 44, 277-294.	0.8	8
12	Convergent expansions of the confluent hypergeometric functions in terms of elementary functions. <i>Mathematics of Computation</i> , 2018, 88, 1773-1789.	1.1	7
13	Convergent and Asymptotic Methods for Second-order Difference Equations with a Large Parameter. <i>Mediterranean Journal of Mathematics</i> , 2018, 15, 1.	0.4	0
14	Uniform convergent expansions of the Gauss hypergeometric function in terms of elementary functions. <i>Integral Transforms and Special Functions</i> , 2018, 29, 942-954.	0.8	3
15	The asymptotic expansion of the swallowtail integral in the highly oscillatory region. <i>Applied Mathematics and Computation</i> , 2018, 339, 837-845.	1.4	3
16	Representations of hypergeometric functions for arbitrary parameter values and their use. <i>Journal of Approximation Theory</i> , 2017, 218, 42-70.	0.5	12
17	Orthogonal basis for the optical transfer function. <i>Applied Optics</i> , 2016, 55, 9688.	2.1	7
18	Orthogonal basis with a conicoid first mode for shape specification of optical surfaces: reply. <i>Optics Express</i> , 2016, 24, 16499.	1.7	0

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19	Orthogonal basis with a conicoid first mode for shape specification of optical surfaces. Optics Express, 2016, 24, 5448.	1.7	6
20	Analytic formulas for the evaluation of the Pearcey integral. Mathematics of Computation, 2016, 86, 2399-2407.	1.1	4
21	The Pearcey integral in the highly oscillatory region. Applied Mathematics and Computation, 2016, 275, 404-410.	1.4	6
22	On a Modification of Olver's Method: A Special Case. Constructive Approximation, 2016, 43, 273-290.	1.8	1
23	Convergent and asymptotic expansions of solutions of differential equations with a large parameter: Olver cases II and III. Journal of Integral Equations and Applications, 2015, 27, .	0.2	3
24	Convergent and asymptotic expansions of the Pearcey integral. Journal of Mathematical Analysis and Applications, 2015, 430, 181-192.	0.5	15
25	Zernike-like systems in polygons and polygonal facets. Applied Optics, 2015, 54, 6575.	2.1	7
26	Asymptotic behaviour of the Urbanik semigroup. Journal of Approximation Theory, 2015, 195, 109-121.	0.5	5
27	New series expansions of the F23 function. Journal of Mathematical Analysis and Applications, 2015, 421, 982-995.	0.5	1
28	Generalization of Zernike polynomials for regular portions of circles and ellipses. Optics Express, 2014, 22, 21263.	1.7	10
29	Asymptotics ($\rightarrow_{\infty} p \hat{r} \hat{z}$) of L_p -norms of hypergeometric orthogonal polynomials. Journal of Mathematical Chemistry, 2014, 52, 283-300.	0.7	5
30	Series expansions of multi-dimensional Mellin convolution integrals. Integral Transforms and Special Functions, 2014, 25, 888-897.	0.8	0
31	Convergent and asymptotic expansions of solutions of second-order differential equations with a large parameter. Analysis and Applications, 2014, 12, 523-536.	1.2	4
32	New series expansions for the confluent hypergeometric function. Applied Mathematics and Computation, 2014, 235, 26-31.	1.4	5
33	Computation of Mellin convolution integrals with a logarithmic kernel: application to the third Appell function. Integral Transforms and Special Functions, 2014, 25, 612-626.	0.8	0
34	Asymptotic Reductions Between the Wilson Polynomials and the Lower Level Polynomials of the Askey Scheme. , 2014, , 653-690.		0
35	Approximations of the Poisson transform for large and small values of the transformation parameter. Ramanujan Journal, 2013, 30, 309-326.	0.4	0
36	New series expansions of the Gauss hypergeometric function. Advances in Computational Mathematics, 2013, 39, 349-365.	0.8	14

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37	Asymptotics of the first Appell function F_1 with large parameters. Integral Transforms and Special Functions, 2013, 24, 715-733.	0.8	2
38	Asymptotics of the first Appell function F_1 with large parameters II. Integral Transforms and Special Functions, 2013, 24, 982-999.	0.8	1
39	The Second Appell Function for one Large Variable. Mediterranean Journal of Mathematics, 2013, 10, 1853-1865.	0.4	0
40	The third Appell function for one large variable. Journal of Approximation Theory, 2013, 165, 60-69.	0.5	3
41	Factorization of second-order linear differential equations and Liouville-Neumann expansions. Mathematical and Computer Modelling, 2013, 57, 1514-1530.	2.0	3
42	Olver's asymptotic method revisited; Case I. Journal of Mathematical Analysis and Applications, 2012, 395, 578-586.	0.5	5
43	Two-point Taylor approximations of the solutions of two-dimensional boundary value problems. Applied Mathematics and Computation, 2012, 218, 9107-9115.	1.4	2
44	The Liouville-Neumann expansion in singular eigenvalue problems. Applied Mathematics Letters, 2012, 25, 72-76.	1.5	0
45	A family of integrals analytically solvable. International Journal of Computer Mathematics, 2011, 88, 2721-2727.	1.0	0
46	A Systematic "Saddle Point Near a Pole" Asymptotic Method with Application to the Gauss Hypergeometric Function. Studies in Applied Mathematics, 2011, 127, 24-37.	1.1	2
47	An Explicit Formula for the Coefficients of the Saddle Point Method. Constructive Approximation, 2011, 33, 145-162.	1.8	8
48	Large degree asymptotics of generalized Bessel polynomials. Journal of Mathematical Analysis and Applications, 2011, 377, 30-42.	0.5	3
49	Two-point Taylor expansions and one-dimensional boundary value problems. Mathematics of Computation, 2010, 79, 2103-2103.	1.1	5
50	Asymptotics and numerics of polynomials used in Tricomi and Buchholz expansions of Kummer functions. Numerische Mathematik, 2010, 116, 269-289.	0.9	4
51	Large degree asymptotics of generalized Bernoulli and Euler polynomials. Journal of Mathematical Analysis and Applications, 2010, 363, 197-208.	0.5	15
52	Variation of parameters and solutions of composite products of linear differential equations. Journal of Mathematical Analysis and Applications, 2010, 369, 658-670.	0.5	3
53	Asymptotic expansions of Mellin convolution integrals: An oscillatory case. Journal of Computational and Applied Mathematics, 2010, 233, 1562-1569.	1.1	4
54	The confluent hypergeometric functions M and M		

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55	The Liouvilleâ€™s Neumann expansion in one-dimensional boundary value problems. <i>Integral Transforms and Special Functions</i> , 2010, 21, 125-133.	0.8	2
56	The Appellâ€™s function F_2 for large values of its variables. <i>Quarterly of Applied Mathematics</i> , 2010, 68, 701-712.	0.5	4
57	The Liouvilleâ€™s Neumann approximation of the regular solutions of the Heun's equations. <i>Integral Transforms and Special Functions</i> , 2010, 21, 839-847.	0.8	1
58	The Liouvilleâ€™s Neumann expansion at a regular singular point. <i>Journal of Difference Equations and Applications</i> , 2009, 15, 119-132.	0.7	5
59	A systematization of the saddle point method. Application to the Airy and Hankel functions. <i>Journal of Mathematical Analysis and Applications</i> , 2009, 354, 347-359.	0.5	15
60	A simplification of Laplaceâ€™s method: Applications to the Gamma function and Gauss hypergeometric function. <i>Journal of Approximation Theory</i> , 2009, 161, 280-291.	0.5	16
61	Multi-point Taylor approximations in one-dimensional linear boundary value problems. <i>Applied Mathematics and Computation</i> , 2009, 207, 519-527.	1.4	17
62	Two-point Taylor expansions in the asymptotic approximation of double integrals. Application to the second and fourth Appell functions. <i>Journal of Mathematical Analysis and Applications</i> , 2008, 339, 530-541.	0.5	1
63	Asymptotic Approximations between the Hahn-Type Polynomials and Hermite, Laguerre and Charlier Polynomials. <i>Acta Applicandae Mathematicae</i> , 2008, 103, 235-252.	0.5	8
64	Asymptotic relations between the Hahn-type polynomials and Meixnerâ€™s Pollaczek, Jacobi, Meixner and Krawtchouk polynomials. <i>Journal of Computational and Applied Mathematics</i> , 2008, 217, 88-109.	1.1	9
65	A singular perturbation problem with discontinuous data in a cuboid. <i>IMA Journal of Applied Mathematics</i> , 2008, 74, 35-45.	0.8	1
66	Asymptotic Expansions of Mellin Convolution Integrals. <i>SIAM Review</i> , 2008, 50, 275-293.	4.2	13
67	The Stokes phenomenon as a boundary-value problem. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2007, 40, 10807-10812.	0.7	2
68	The role of the error function in a singularly perturbed convectionâ€™diffusion problem in a rectangle with corner singularities. <i>Proceedings of the Royal Society of Edinburgh Section A: Mathematics</i> , 2007, 137, 93-109.	0.8	4
69	Asymptotic expansions of Mellin convolutions by means of analytic continuation. <i>Journal of Computational and Applied Mathematics</i> , 2007, 200, 628-636.	1.1	10
70	Asymptotic behaviour of three-dimensional singularly perturbed convectionâ€™diffusion problems with discontinuous data. <i>Journal of Mathematical Analysis and Applications</i> , 2007, 328, 931-945.	0.5	6
71	The Lambert transform for small and large values of the transformation parameter. <i>Quarterly of Applied Mathematics</i> , 2006, 64, 515-527.	0.5	2
72	Homoclinic Connections of Unstable Plane Waves of the Long-Wave-Short-Wave Equations. <i>Studies in Applied Mathematics</i> , 2006, 117, 71-93.	1.1	11

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73	Asymptotic expansions of the Lauricella hypergeometric function F_D . Journal of Computational and Applied Mathematics, 2003, 151, 235-256.	1.1	10
74	Symmetric standard elliptic integrals with two or three large parameters. Integral Transforms and Special Functions, 2006, 17, 433-442.	0.8	1
75	Asymptotic approximations for a singularly perturbed convection-diffusion problem with discontinuous data in a sector. Journal of Computational and Applied Mathematics, 2005, 181, 1-23.	1.1	7
76	Incomplete gamma functions for large values of their variables. Advances in Applied Mathematics, 2005, 34, 467-485.	0.4	17
77	Asymptotic approximation of singularly perturbed convection-diffusion problems with discontinuous derivatives of the Dirichlet data. Quarterly of Applied Mathematics, 2005, 63, 527-543.	0.5	1
78	Convergent asymptotic expansions of Charlier, Laguerre and Jacobi polynomials. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2004, 134, 537-555.	0.8	6
79	Analytic expansions of thermonuclear reaction rates. Journal of Physics A, 2004, 37, 2637-2659.	1.6	13
80	Asymptotic Expansions for Two Singularly Perturbed Convection-Diffusion Problems with Discontinuous Data: The Quarter Plane and the Infinite Strip. Studies in Applied Mathematics, 2004, 113, 57-89.	1.1	5
81	Analytic Approximations for a Singularly Perturbed Convection-Diffusion Problem with Discontinuous Data in a Half-Infinite Strip. Acta Applicandae Mathematicae, 2004, 82, 101-117.	0.5	4
82	Two Algorithms for Computing the Randles-Sevcik Function from Electrochemistry. Journal of Mathematical Chemistry, 2004, 35, 131-137.	0.7	5
83	Asymptotic expansions of the Hurwitz-Lerch zeta function. Journal of Mathematical Analysis and Applications, 2004, 298, 210-224.	0.5	66
84	Asymptotic expansions of the Appell's function F_2 . Quarterly of Applied Mathematics, 2004, 62, 235-257.	0.5	11
85	Multi-point Taylor expansions of analytic functions. Transactions of the American Mathematical Society, 2004, 356, 4323-4342.	0.5	21
86	Asymptotic relations in the Askey scheme for hypergeometric orthogonal polynomials. Advances in Applied Mathematics, 2003, 31, 61-85.	0.4	10
87	Asymptotic expansions of the Lauricella hypergeometric function F_D . Journal of Computational and Applied Mathematics, 2003, 151, 235-256.	1.1	6
88	Number and amplitude of limit cycles emerging from topologically equivalent perturbed centers. Chaos, Solitons and Fractals, 2003, 17, 135-143.	2.5	4
89	Asymptotic expansions of the double Zeta function. Journal of Mathematical Analysis and Applications, 2002, 274, 134-158.	0.5	2
90	Two-Point Taylor Expansions of Analytic Functions. Studies in Applied Mathematics, 2002, 109, 297-311.	1.1	43

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91	Asymptotic Expansions of Generalized Stieltjes Transforms of Algebraically Decaying Functions. Studies in Applied Mathematics, 2002, 108, 187-215.	1.1	13
92	Uniform Asymptotic Expansions of Symmetric Elliptic Integrals. Constructive Approximation, 2001, 17, 535-559.	1.8	13
93	The Askey scheme for hypergeometric orthogonal polynomials viewed from asymptotic analysis. Journal of Computational and Applied Mathematics, 2001, 133, 623-633.	1.1	12
94	An Asymptotic Expansion of the Double Gamma Function. Journal of Approximation Theory, 2001, 111, 298-314.	0.5	40
95	Asymptotic Expansions of Symmetric Standard Elliptic Integrals. SIAM Journal on Mathematical Analysis, 2000, 31, 754-775.	0.9	22
96	Uniform Approximations of Bernoulli and Euler Polynomials in Terms of Hyperbolic Functions. Studies in Applied Mathematics, 1999, 103, 241-258.	1.1	8
97	Hermite Polynomials in Asymptotic Representations of Generalized Bernoulli, Euler, Bessel, and Buchholz Polynomials. Journal of Mathematical Analysis and Applications, 1999, 239, 457-477.	0.5	19
98	Reflection anomaly in dimensions. Journal of Physics A, 1998, 31, 7955-7964.	1.6	1
99	New Analytic Representations of the Hypergeometric Functions ${}_pF_q$. Constructive Approximation, 0, , 1.	1.8	0
100	Uniform representations of the incomplete beta function in terms of elementary functions. Electronic Transactions on Numerical Analysis, 0, 48, 450-461.	0.0	4
101	The swallowtail integral in the highly oscillatory region II. Electronic Transactions on Numerical Analysis, 0, 52, 88-99.	0.0	3