Rodolfo Rodriguez

List of Publications by Year
in descending order

120 papers	2,489 citations	201385 27 h-index	233125 45 g-index
125 all docs	125 docs citations	125 times ranked	1003 citing authors

#	Article	IF	Citations
1	An asymptotic model based on matching far and near field expansions for thin gratings problems. ESAIM: Mathematical Modelling and Numerical Analysis, 2021, 55, S507-S533.	0.8	1
2	Numerical Approximation of the Displacement Formulation of the Axisymmetric Acoustic Vibration Problem. SIAM Journal of Scientific Computing, 2021, 43, A1583-A1606.	1.3	4
3	Numerical analysis of a time domain elastoacoustic problem. IMA Journal of Numerical Analysis, 2020, 40, 1122-1153.	1.5	2
4	Numerical analysis of a penalty approach for the solution of a transient eddy current problem. Computers and Mathematics With Applications, 2020, 79, 2503-2526.	1.4	0
5	Mixed discontinuous Galerkin approximation of the elasticity eigenproblem. Numerische Mathematik, 2019, 142, 749-786.	0.9	11
6	A Posteriori Error Estimates for Maxwell's Eigenvalue Problem. Journal of Scientific Computing, 2019, 78, 1250-1271.	1.1	11
7	A perfectly matched layer for finite-element calculations of diffraction by metallic surface-relief gratings. Wave Motion, 2018, 78, 68-82.	1.0	7
8	Finite Element Approximation of the Spectrum of the Curl Operator in a Multiply Connected Domain. Foundations of Computational Mathematics, 2018, 18, 1493-1533.	1.5	6
9	Combining the DPG Method with Finite Elements. Computational Methods in Applied Mathematics, 2018, 18, 639-652.	0.4	0
10	Acoustic vibration problem for dissipative fluids. Mathematics of Computation, 2018, 88, 45-71.	1.1	1
11	Convergence of a lowest-order finite element method for the transmission eigenvalue problem. Calcolo, 2018, 55, 1.	0.6	15
12	A virtual element method for the acoustic vibration problem. Numerische Mathematik, 2017, 136, 725-763.	0.9	51
13	A posteriori error estimates for a Virtual Element Method for the Steklov eigenvalue problem. Computers and Mathematics With Applications, 2017, 74, 2172-2190.	1.4	42
14	Analysis of an ungauged **T**, $\ddot{I}\dagger$â€"$\ddot{I}\dagger$ formulation of the eddy current problem with currents and voltage excitations. ESAIM: Mathematical Modelling and Numerical Analysis, 2017, 51, 2487-2509.	0.8	6
15	Asymptotic model for finite-element calculations of diffraction by shallow metallic surface-relief gratings. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2017, 34, 68.	0.8	3
16	A transient eddy current problem on a moving domain. Numerical analysis. Advances in Computational Mathematics, 2016, 42, 757-789.	0.8	7
17	Finite Element Analysis of a Bending Moment Formulation for the Vibration Problem of a Non-homogeneous Timoshenko Beam. Journal of Scientific Computing, 2016, 66, 825-848.	1.1	2
18	Spectral approximation of the curl operator in multiply connected domains. Discrete and Continuous Dynamical Systems - Series S, 2016, 9, 235-253.	0.6	1

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19	Analysis of a T, Ï• â˜Ï• Formulation of the Eddy Current Problem Based on Edge Finite Elements. Lecture Notes in Computational Science and Engineering, 2016, , 547-555.	0.1	0
20	A finite element analysis of a pseudostress formulation for the Stokes eigenvalue problem. IMA Journal of Numerical Analysis, 2015, 35, 749-766.	1.5	13
21	A virtual element method for the Steklov eigenvalue problem. Mathematical Models and Methods in Applied Sciences, 2015, 25, 1421-1445.	1.7	156
22	Numerical Approximation of Maxwell Equations in Low-Frequency Regime. Lecture Notes in Mathematics, 2015, , 59-110.	0.1	1
23	Numerical analysis of a transient non-linear axisymmetric eddy current model. Computers and Mathematics With Applications, 2015, 70, 1984-2005.	1.4	8
24	Finite element analysis for a pressureâ€"stress formulation of a fluidâ€"structure interaction spectral problem. Computers and Mathematics With Applications, 2014, 68, 1733-1750.	1.4	10
25	A posteriori error estimates for the problem of electrostatics with a dipole source. Computers and Mathematics With Applications, 2014, 68, 464-485.	1.4	6
26	Locking-free finite element method for a bending moment formulation of Timoshenko beams. Computers and Mathematics With Applications, 2014, 68, 118-131.	1.4	11
27	Physical and Spurious Modes in Mixed Finite Element Formulation for the Galbrun Equation. Acta Acustica United With Acustica, 2014, 100, 493-512.	0.8	4
28	Numerical analysis of a lockingâ€free mixed finite element method for a bending moment formulation of Reissnerâ€Mindlin plate model. Numerical Methods for Partial Differential Equations, 2013, 29, 40-63.	2.0	12
29	An eddy current problem in terms of a time-primitive of the electric field with non-local source conditions. ESAIM: Mathematical Modelling and Numerical Analysis, 2013, 47, 875-902.	0.8	8
30	A Transient Eddy Current Problem on a Moving Domain. Mathematical Analysis. SIAM Journal on Mathematical Analysis, 2013, 45, 3629-3650.	0.9	7
31	Finite Element Spectral Analysis for the Mixed Formulation of the Elasticity Equations. SIAM Journal on Numerical Analysis, 2013, 51, 1041-1063.	1.1	26
32	NUMERICAL SOLUTION OF A TRANSIENT NONLINEAR AXISYMMETRIC EDDY CURRENT MODEL WITH NONLOCAL BOUNDARY CONDITIONS. Mathematical Models and Methods in Applied Sciences, 2013, 23, 2495-2521.	1.7	7
33	Numerical approximation of the spectrum of the curl operator. Mathematics of Computation, 2013, 83, 553-577.	1.1	6
34	Numerical solution of transient eddy current problems with input current intensities as boundary data. IMA Journal of Numerical Analysis, 2012, 32, 1001-1029.	1.5	8
35	An hp Finite Element Method to Solve a Fluid-Solid Vibration Problem. SIAM Journal of Scientific Computing, 2012, 34, A2533-A2557.	1.3	2
36	A finite element method for stiffened plates. ESAIM: Mathematical Modelling and Numerical Analysis, 2012, 46, 291-315.	0.8	1

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37	Analysis of a FEMâ€"BEM model posed on the conducting domain for the time-dependent eddy current problem. Journal of Computational and Applied Mathematics, 2012, 236, 3084-3100.	1.1	7
38	Numerical analysis of a transient eddy current axisymmetric problem involving velocity terms. Numerical Methods for Partial Differential Equations, 2012, 28, 984-1012.	2.0	9
39	A fictitious domain method for the numerical two-dimensional simulation of potential flows past sails. ESAIM: Mathematical Modelling and Numerical Analysis, 2011, 45, 1033-1058.	0.8	0
40	A locking-free finite element method for the buckling problem of a non-homogeneous Timoshenko beam. ESAIM: Mathematical Modelling and Numerical Analysis, 2011, 45, 603-626.	0.8	5
41	An hp finite element adaptive scheme to solve the Laplace model for fluidâ€"solid vibrations. Computer Methods in Applied Mechanics and Engineering, 2011, 200, 178-188.	3.4	20
42	Finite-element analysis of a static fluid-solid interaction problem. IMA Journal of Numerical Analysis, 2011, 31, 886-913.	1.5	2
43	Numerical analysis of a finite element method to compute the vibration modes of a Reissner-Mindlin laminated plate. Mathematics of Computation, 2011, 80, 1239-1264.	1.1	3
44	Perfectly Matched Layers for Time-Harmonic Second Order Elliptic Problems. Archives of Computational Methods in Engineering, 2010, 17, 77-107.	6.0	47
45	Equivalence between two finite element methods for the eddy current problem. Comptes Rendus Mathematique, 2010, 348, 769-774.	0.1	4
46	Numerical analysis of a finite-element method for the axisymmetric eddy current model of an induction furnace. IMA Journal of Numerical Analysis, 2010, 30, 654-676.	1.5	19
47	Approximation of the Buckling Problem for Reissnerâ€"Mindlin Plates. SIAM Journal on Numerical Analysis, 2010, 48, 603-632.	1.1	10
48	An ?-based mixed formulation for a time-dependent eddy current problem. Mathematics of Computation, 2009, 78, 1929-1949.	1.1	16
49	A piecewise linear finite element method for the buckling and the vibration problems of thin plates. Mathematics of Computation, 2009, 78, 1891-1917.	1.1	17
50	A Finite Element Method for the Magnetostatic Problem in Terms of Scalar Potentials. SIAM Journal on Numerical Analysis, 2008, 46, 1338-1363.	1.1	71
51	An Exact Bounded Perfectly Matched Layer for Time-Harmonic Scattering Problems. SIAM Journal of Scientific Computing, 2008, 30, 312-338.	1.3	45
52	Approximation of the vibration modes of a Timoshenko curved rod of arbitrary geometry. IMA Journal of Numerical Analysis, 2008, 29, 180-207.	1.5	9
53	Fluidâ€"Structure Acoustic Interaction. , 2008, , 253-286.		7
54	VALIDATION OF ACOUSTIC MODELS FOR TIME-HARMONIC DISSIPATIVE SCATTERING PROBLEMS. Journal of Computational Acoustics, 2007, 15, 95-121.	1.0	11

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55	An adaptive stabilized finite element scheme for a water quality model. Computer Methods in Applied Mechanics and Engineering, 2007, 196, 2800-2812.	3.4	6
56	Error estimators for advection–reaction–diffusion equations based on the solution of local problems. Journal of Computational and Applied Mathematics, 2007, 206, 440-453.	1.1	8
57	An optimal perfectly matched layer with unbounded absorbing function for time-harmonic acoustic scattering problems. Journal of Computational Physics, 2007, 223, 469-488.	1.9	171
58	TWO DISCRETIZATION SCHEMES FOR A TIME-DOMAIN DISSIPATIVE ACOUSTICS PROBLEM. Mathematical Models and Methods in Applied Sciences, 2006, 16, 1559-1598.	1.7	3
59	Title is missing!. Applied Numerical Mathematics, 2006, 56, 1255.	1.2	0
60	A posteriori error estimates for elliptic problems with Dirac delta source terms. Numerische Mathematik, 2006, 105, 193-216.	0.9	43
61	Approximation of a structural acoustic vibration problem by hexahedral finite elements. IMA Journal of Numerical Analysis, 2006, 26, 391-421.	1.5	21
62	Galbrun's Equation Solved by a First Order Characteristics Method. , 2006, , 1212-1219.		1
63	An adaptive stabilized finite element scheme for the advection–reaction–diffusion equation. Applied Numerical Mathematics, 2005, 54, 491-503.	1.2	36
64	Numerical solution of eddy current problems in bounded domains using realistic boundary conditions. Computer Methods in Applied Mechanics and Engineering, 2005, 194, 411-426.	3.4	25
65	Approximation properties of lowest-order hexahedral Raviart–Thomas finite elements. Comptes Rendus Mathematique, 2005, 340, 687-692.	0.1	11
66	Numerical analysis of electric field formulations of the eddy current model. Numerische Mathematik, 2005, 102, 181-201.	0.9	10
67	Numerical treatment of realistic boundary conditions for the eddy current problem in an electrode via Lagrange multipliers. Mathematics of Computation, 2004, 74, 123-152.	1.1	12
68	Analysis of a coupled BEM/FEM eigensolver for the hydroelastic vibrations problem. ESAIM: Mathematical Modelling and Numerical Analysis, 2004, 38, 653-672.	0.8	2
69	Finite Element Methods in Local Active Control of Sound. SIAM Journal on Control and Optimization, 2004, 43, 437-465.	1.1	31
70	Numerical Analysis of Finite Element Methods for Eddy Current Problems. Applications to Electrode Simulation. , 2004, , 3-19.		0
71	Finite element approximation of spectral acoustic problems on curved domains. Numerische Mathematik, 2004, 97, 131-158.	0.9	7
72	Accurate pressure post-process of a finite element method for elastoacoustics. Numerische Mathematik, 2004, 98, 389-425.	0.9	3

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73	An exact bounded PML for the Helmholtz equation. Comptes Rendus Mathematique, 2004, 339, 803-808.	0.1	27
74	Finite element analysis of pressure formulation of the elastoacoustic problem. Numerische Mathematik, 2003, 95, 29-51.	0.9	15
75	Finite element computation of sloshing modes in containers with elastic baffle plates. International Journal for Numerical Methods in Engineering, 2003, 56, 447-467.	1.5	29
76	A priori and a posteriori error analysis for a large-scale ocean circulation finite element model. Computer Methods in Applied Mechanics and Engineering, 2003, 192, 5305-5327.	3.4	15
77	Computation of the vibration modes of plates and shells by low-order MITC quadrilateral finite elements. Computers and Structures, 2003, 81, 615-628.	2.4	9
78	Finite element approximation of a displacement formulation for time-domain elastoacoustic vibrations. Journal of Computational and Applied Mathematics, 2003, 152, 17-34.	1.1	19
79	Numerical analysis of the electric field formulation of an eddy current problem. Comptes Rendus Mathematique, 2003, 337, 359-364.	0.1	4
80	Error Estimates for Low-Order Isoparametric Quadrilateral Finite Elements for Plates. SIAM Journal on Numerical Analysis, 2003, 41, 1751-1772.	1.1	38
81	A Posteriori Error Estimates for the Finite Element Approximation of Eigenvalue Problems. Mathematical Models and Methods in Applied Sciences, 2003, 13, 1219-1229.	1.7	92
82	A modal synthesis method for the elastoacoustic vibration problem. ESAIM: Mathematical Modelling and Numerical Analysis, 2002, 36, 121-142.	0.8	2
83	Finite element approximation of spectral problems with Neumann boundary conditions on curved domains. Mathematics of Computation, 2002, 72, 1099-1116.	1.1	11
84	A Finite Element Method with Lagrange Multipliers for Low-Frequency Harmonic Maxwell Equations. SIAM Journal on Numerical Analysis, 2002, 40, 1823-1849.	1.1	54
85	Modeling and numerical treatment of boundary data in an eddy currents problem. Comptes Rendus Mathematique, 2002, 335, 633-638.	0.1	2
86	Analysis of a finite element method for pressure/potential formulation of elastoacoustic spectral problems. Mathematics of Computation, 2001, 71, 537-553.	1.1	13
87	Finite element computation of the vibrations of a plate-fluid system with interface damping. Computer Methods in Applied Mechanics and Engineering, 2001, 190, 3021-3038.	3.4	17
88	Title is missing!. Advances in Computational Mathematics, 2001, 15, 25-59.	0.8	8
89	An adaptive finite element scheme to solve fluid-structure vibration problems on non-matching grids. Computing and Visualization in Science, 2001, 4, 67-78.	1.2	8
90	Efficient solution of fluid-structure vibration problems. Applied Numerical Mathematics, 2001, 36, 389-400.	1.2	11

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91	AN HEXAHEDRAL FACE ELEMENT METHOD FOR THE DISPLACEMENT FORMULATION OF STRUCTURAL ACOUSTICS PROBLEMS. Journal of Computational Acoustics, 2001, 09, 911-918.	1.0	2
92	A hexahedral face element for elastoacoustic vibration problems. Journal of the Acoustical Society of America, 2001, 109, 422-425.	0.5	6
93	Finite element analysis of a pressure/potential formulation for structural-acoustic problems. , 2001, , 1077-1080.		0
94	A finite element solution of an added mass formulation for coupled fluid-solid vibrations. Numerische Mathematik, 2000, 87, 201-227.	0.9	65
95	Finite element analysis of the vibration problem of a plate coupled with a fluid. Numerische Mathematik, 2000, 86, 591-616.	0.9	15
96	Finite Element Analysis of a Quadratic Eigenvalue Problem Arising in Dissipative Acoustics. SIAM Journal on Numerical Analysis, 2000, 38, 267-291.	1.1	35
97	Finite Element Methods for Fluid-Structure Vibration Problems. , 2000, , 195-204.		0
98	Approximation of the vibration modes of a plate by Reissner-Mindlin equations. Mathematics of Computation, 1999, 68, 1447-1464.	1.1	27
99	FINITE ELEMENT COMPUTATION OF THREE-DIMENSIONAL ELASTOACOUSTIC VIBRATIONS. Journal of Sound and Vibration, 1999, 219, 279-306.	2.1	53
100	Modelling and numerical solution of elastoacoustic vibrations with interface damping. International Journal for Numerical Methods in Engineering, 1999, 46, 1763-1779.	1.5	22
101	Finite element analysis of sloshing and hydroelastic vibrations under gravity. ESAIM: Mathematical Modelling and Numerical Analysis, 1999, 33, 305-327.	0.8	12
102	Finite element analysis of compressible and incompressible fluid-solid systems. Mathematics of Computation, 1998, 67, 111-136.	1.1	35
103	FINITE ELEMENT SOLUTION OF INCOMPRESSIBLE FLUID-STRUCTURE VIBRATION PROBLEMS. International Journal for Numerical Methods in Engineering, 1997, 40, 1435-1448.	1.5	34
104	The order of convergence of eigenfrequencies in finite element approximations of fluid-structure interaction problems. Mathematics of Computation, 1996, 65, 1463-1476.	1.1	30
105	Finite Element Vibration Analysis of Fluidâ€"Solid Systems without Spurious Modes. SIAM Journal on Numerical Analysis, 1995, 32, 1280-1295.	1.1	93
106	Some remarks on Zienkiewicz-Zhu estimator. Numerical Methods for Partial Differential Equations, 1994, 10, 625-635.	2.0	117
107	Finite element computation of the vibration modes of a fluidâ€"solid system. Computer Methods in Applied Mechanics and Engineering, 1994, 119, 355-370.	3.4	110
108	The problem of the selection of an a posteriori error indicator based on smoothening techniques. International Journal for Numerical Methods in Engineering, 1993, 36, 539-567.	1.5	59

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109	Analysis of the Efficiency of an a Posteriori Error Estimator for Linear Triangular Finite Elements. SIAM Journal on Numerical Analysis, 1992, 29, 947-964.	1.1	85
110	Asymptotically Exact Error Estimators for Rectangular Finite Elements. SIAM Journal on Numerical Analysis, 1992, 29, 78-88.	1.1	15
111	Basic problems of a posteriori error estimation. Computer Methods in Applied Mechanics and Engineering, 1992, 101, 97-112.	3.4	17
112	Quality assessment of the a-posteriori error estimation in finite elements. Finite Elements in Analysis and Design, 1992, 11, 285-306.	1.7	20
113	On the asymptotic exactness of Bank-Weiser's estimator. Numerische Mathematik, 1992, 62, 297-303.	0.9	36
114	On the asymptotic exactness of error estimators for linear triangular finite elements. Numerische Mathematik, 1991, 59, 107-127.	0.9	60
115	A stable method to estimate perturbations in differential equations. Computers and Mathematics With Applications, 1986, 12, 1275-1286.	1.4	3
116	Phase-locking of lasers with injected signal fluctuations. Optics Communications, 1986, 59, 39-42.	1.0	2
117	Shift of the coordinate origin in calculating resonances by dilatation transformation. Journal of Computational Physics, 1985, 57, 491-494.	1.9	0
118	Residual-based *a posteriori* error estimation for the Maxwell's eigenvalue problem. IMA Journal of Numerical Analysis, 0, , drw066.	1.5	3
119	Perfectly Matched Layers. , 0, , 167-196.		9
120	Divergence-free finite elements for the numerical solution of a hydroelastic vibration problem. Numerical Methods for Partial Differential Equations, 0, , .	2.0	0