Alfio Maria Quarteroni

List of Publications by Year
in descending order

333 papers	18,758 citations	19608 61 h-index	22764 112 g-index
356 all docs	356 docs citations	356 times ranked	9062 citing authors

#	Article	IF	Citations
1	The role of mechano-electric feedbacks and hemodynamic coupling in scar-related ventricular tachycardia. Computers in Biology and Medicine, 2022, 142, 105203.	3.9	21
2	Prediction of myocardial blood flow under stress conditions by means of a computational model. European Journal of Nuclear Medicine and Molecular Imaging, 2022, 49, 1894-1905.	3.3	5
3	Electrogram fractionation during sinus rhythm occurs in normal voltage atrial tissue in patients with atrial fibrillation. PACE - Pacing and Clinical Electrophysiology, 2022, 45, 219-228.	0.5	3
4	Spectral element numerical simulation of the 2009 Lâ€™Aquila earthquake on a detailed reconstructed domain. Geophysical Journal International, 2022, 230, 29-49.	1.0	7
5	3Dâ€“0D closed-loop model for the simulation of cardiac biventricular electromechanics. Computer Methods in Applied Mechanics and Engineering, 2022, 391, 114607.	3.4	23
6	A geometric multiscale model for the numerical simulation of blood flow in the human left heart. Discrete and Continuous Dynamical Systems - Series S, 2022, 15, 2391.	0.6	22
7	Modeling the cardiac electromechanical function: A mathematical journey. Bulletin of the American Mathematical Society, 2022, 59, 371-403.	0.8	4
8	Slow Conduction Corridors and Pivot Sites Characterize the Electrical Remodeling in Atrial Fibrillation. JACC: Clinical Electrophysiology, 2022, 8, 561-577.	1.3	18
9	Modelling the COVID-19 epidemic and the vaccination campaign in Italy by the SUIHTER model. Infectious Disease Modelling, 2022, 7, 45-63.	1.2	11
10	Projection-based reduced order models for parameterized nonlinear time-dependent problems arising in cardiac mechanics. Mathematics in Engineering, 2022, 5, 1-38.	0.5	8
11	Computational electrophysiology of the coronary sinus branches based on electro-anatomical mapping for the prediction of the latest activated region. Medical and Biological Engineering and Computing, 2022, 60, 2307-2319.	1.6	2
12	Computational fluid dynamics of blood flow in an idealized left human heart. International Journal for Numerical Methods in Biomedical Engineering, 2021, 37, e3287.	1.0	13
13	A computational model applied to myocardial perfusion in the human heart: From large coronaries to microvasculature. Journal of Computational Physics, 2021, 424, 109836.	1.9	23
14	Modeling cardiac muscle fibers in ventricular and atrial electrophysiology simulations. Computer Methods in Applied Mechanics and Engineering, 2021, 373, 113468.	3.4	58
15	Mathematical analysis and numerical approximation of a general linearized poro-hyperelastic model. Computers and Mathematics With Applications, 2021, 91, 202-228.	1.4	12
16	Active Force Generation in Cardiac Muscle Cells: Mathematical Modeling and Numerical Simulation of the Actin-Myosin Interaction. Vietnam Journal of Mathematics, 2021, 49, 87-118.	0.4	17
17	Polygonal surface processing and mesh generation tools for the numerical simulation of the cardiac function. International Journal for Numerical Methods in Biomedical Engineering, 2021, 37, e3435.	1.0	40
18	Modeling the cardiac response to hemodynamic changes associated with COVID-19: a computational study. Mathematical Biosciences and Engineering, 2021, 18, 3364-3383.	1.0	5

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19	Data integration for the numerical simulation of cardiac electrophysiology. PACE - Pacing and Clinical Electrophysiology, 2021, 44, 726-736.	0.5	8
20	Multipatch Isogeometric Analysis for electrophysiology: Simulation in a human heart. Computer Methods in Applied Mechanics and Engineering, 2021, 376, 113666.	3.4	23
21	POD-Enhanced Deep Learning-Based Reduced Order Models for the Real-Time Simulation of Cardiac Electrophysiology in the Left Atrium. Frontiers in Physiology, 2021, 12, 679076.	1.3	19
22	Hemodynamics of the heartâ€™s left atrium based on a Variational Multiscale-LES numerical method. European Journal of Mechanics, B/Fluids, 2021, 89, 380-400.	1.2	27
23	‹tt›SUIHTER‹/tt› : a new mathematical model for COVID-19. Application to the analysis of the second epidemic outbreak in Italy. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2021, 477, 20210027.	1.0	21
24	Electromechanical modeling of human ventricles with ischemic cardiomyopathy: numerical simulations in sinus rhythm and under arrhythmia. Computers in Biology and Medicine, 2021, 136, 104674.	3.9	26
25	Electro-Mechanical Coupling in Human Atrial Cardiomyocytes: Model Development and Analysis of Inotropic Interventions. , 2021, , .		2
26	Image-Based Computational Hemodynamics Analysis of Systolic Obstruction in Hypertrophic Cardiomyopathy. Frontiers in Physiology, 2021, 12, 787082.	1.3	12
27	Analysis of morphological and hemodynamical indexes in abdominal aortic aneurysms as preliminary indicators of intraluminal thrombus deposition. Biomechanics and Modeling in Mechanobiology, 2020, 19, 1035-1053.	1.4	9
28	Integration of activation maps of epicardial veins in computational cardiac electrophysiology. Computers in Biology and Medicine, 2020, 127, 104047.	3.9	11
29	An image-based computational hemodynamics study of the Systolic Anterior Motion of the mitral valve. Computers in Biology and Medicine, 2020, 123, 103922.	3.9	26
30	Computational Analysis of Turbulent Hemodynamics in Radiocephalic Arteriovenous Fistulas to Determine the Best Anastomotic Angles. Annals of Vascular Surgery, 2020, 68, 451-459.	0.4	5
31	Outer loop and isthmus in ventricular tachycardia circuits: Characteristics and implications. Heart Rhythm, 2020, 17, 1719-1728.	0.3	20
32	An intergrid transfer operator using radial basis functions with application to cardiac electromechanics. Computational Mechanics, 2020, 66, 491-511.	2.2	16
33	The Mathematics of Mechanobiology. Lecture Notes in Mathematics, 2020, , .	0.1	2
34	A Computational Comparison Between Isogeometric Analysis and Spectral Element Methods: Accuracy and Spectral Properties. Journal of Scientific Computing, 2020, 83, 1.	1.1	9
35	A Proof of Concept for Computational Fluid Dynamic Analysis of the Left Atrium in Atrial Fibrillation on a Patient-Specific Basis. Journal of Biomechanical Engineering, 2020, 142, .	0.6	41
36	Biophysically detailed mathematical models of multiscale cardiac active mechanics. PLoS Computational Biology, 2020, 16, e1008294.	1.5	36

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37	Deep learning-based reduced order models in cardiac electrophysiology. PLoS ONE, 2020, 15, e0239416.	1.1	40
38	Effect of fibre orientation and bulk modulus on the electromechanical modelling of human ventricles. Mathematics in Engineering, 2020, 2, 614-638.	0.5	7
39	Three-dimensional physics-based earthquake ground motion simulations for seismic risk assessment in densely populated urban areas. Mathematics in Engineering, 2020, 3, 1-31.	0.5	13
40	Computational Models for Hemodynamics. , 2020, , 370-378.		0
41	The INTERNODES Method for Non-conforming Discretizations of PDEs. Communications on Applied Mathematics and Computation, 2019, 1, 361-401.	0.7	6
42	Reduced-order modeling of blood flow for noninvasive functional evaluation of coronary artery disease. Biomechanics and Modeling in Mechanobiology, 2019, 18, 1867-1881.	1.4	21
43	Assessing the Disturbed Flow and the Transition to Turbulence in the Arteriovenous Fistula. Journal of Biomechanical Engineering, 2019, 141, .	0.6	17
44	Isogeometric Analysis of the electrophysiology in the human heart: Numerical simulation of the bidomain equations on the atria. Computer Methods in Applied Mechanics and Engineering, 2019, 343, 52-73.	3.4	21
45	Biomembrane modeling with isogeometric analysis. Computer Methods in Applied Mechanics and Engineering, 2019, 347, 103-119.	3.4	8
46	An algebraic least squares reduced basis method for the solution of nonaffinely parametrized Stokes equations. Computer Methods in Applied Mechanics and Engineering, 2019, 344, 186-208.	3.4	10
47	Application of the Rosenbrock methods to the solution of unsteady 3D incompressible Navier-Stokes equations. Computers and Fluids, 2019, 179, 112-122.	1.3	3
48	Multi space reduced basis preconditioners for parametrized Stokes equations. Computers and Mathematics With Applications, 2019, 77, 1583-1604.	1.4	1
49	A saddle point approach to an optimal boundary control problem for steady Navier-Stokes equations. Mathematics in Engineering, 2019, 1, 252-280.	0.5	3
50	The role of statistics in the era of big data: A computational scientistâ€™ perspective. Statistics and Probability Letters, 2018, 136, 63-67.	0.4	7
51	Multi Space Reduced Basis Preconditioners for Large-Scale Parametrized PDEs. SIAM Journal of Scientific Computing, 2018, 40, A954-A983.	1.3	8
52	Analysis of the INTERNODES method for non-conforming discretizations of elliptic equations. Computer Methods in Applied Mechanics and Engineering, 2018, 334, 138-166.	3.4	11
53	A transmurally heterogeneous orthotropic activation model for ventricular contraction and its numerical validation. International Journal for Numerical Methods in Biomedical Engineering, 2018, 34, e3137.	1.0	10
54	Computational Models for Hemodynamics. , 2018, , 1-8.		0

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55	Reduced Order Modeling for Cardiac Electrophysiology and Mechanics: New Methodologies, Challenges and Perspectives. SEMA SIMAI Springer Series, 2018, , 115-166.	0.4	4
56	Numerical modeling of seismic waves by discontinuous spectral element methods. ESAIM Proceedings and Surveys, 2018, 61, 1-37.	0.5	22
57	A high-order discontinuous Galerkin approximation to ordinary differential equations with applications to elastodynamics. IMA Journal of Numerical Analysis, 2018, 38, 1709-1734.	1.5	14
58	Numerical approximation of the electromechanical coupling in the left ventricle with inclusion of the Purkinje network. International Journal for Numerical Methods in Biomedical Engineering, 2018, 34, e2984.	1.0	15
59	Numerical approximation of parametrized problems in cardiac electrophysiology by a local reduced basis method. Computer Methods in Applied Mechanics and Engineering, 2018, 340, 530-558.	3.4	44
60	Active contraction of cardiac cells: a reduced model for sarcomere dynamics with cooperative interactions. Biomechanics and Modeling in Mechanobiology, 2018, 17, 1663-1686.	1.4	24
61	Isogeometric Analysis of a Phase Field Model for Darcy Flows with Discontinuous Data. Chinese Annals of Mathematics Series B, 2018, 39, 487-512.	0.2	3
62	The Impact of Left Atrium Appendage Morphology on Stroke Risk Assessment in Atrial Fibrillation: A Computational Fluid Dynamics Study. Frontiers in Physiology, 2018, 9, 1938.	1.3	71
63	A monolithic algorithm for the simulation of cardiac electromechanics in the human left ventricle. Mathematics in Engineering, 2018, 1, 1-37.	0.5	36
64	INTERNODES for Heterogeneous Couplings. Lecture Notes in Computational Science and Engineering, 2018, , 59-71.	0.1	2
65	INTERNODES for Elliptic Problems. Lecture Notes in Computational Science and Engineering, 2018, , 343-352.	0.1	0
66	Isogeometric analysis and proper orthogonal decomposition for parabolic problems. Numerische Mathematik, 2017, 135, 333-370.	0.9	24
67	Integrated Heartâ€"Coupling multiscale and multiphysics models for the simulation of the cardiac function. Computer Methods in Applied Mechanics and Engineering, 2017, 314, 345-407.	3.4	179
68	Isogeometric approximation of cardiac electrophysiology models on surfaces: An accuracy study with application to the human left atrium. Computer Methods in Applied Mechanics and Engineering, 2017, 317, 248-273.	3.4	28
69	Large eddy simulations for blood dynamics in realistic stenotic carotids. International Journal for Numerical Methods in Biomedical Engineering, 2017, 33, e2868.	1.0	34
70	The cardiovascular system:ÂMathematical modelling, numerical algorithms and clinical applications. Acta Numerica, 2017, 26, 365-590.	6.3	160
71	M for Models. Lettera Matematica, 2017, 5, 147-150.	0.1	0
72	A matrix DEIM technique for model reduction of nonlinear parametrized problems in cardiac mechanics. Computer Methods in Applied Mechanics and Engineering, 2017, 324, 300-326.	3.4	38

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73	Shear stress alterations in the celiac trunk of patients with a continuous-flow left ventricular assist device as shown by in-silico and in-vitro flow analyses. Journal of Heart and Lung Transplantation, 2017, 36, 906-913.	0.3	26
74	Numerical modeling of hemodynamics scenarios of patient-specific coronary artery bypass grafts. Biomechanics and Modeling in Mechanobiology, 2017, 16, 1373-1399.	1.4	32
75	Complex blood flow patterns in an idealized left ventricle: A numerical study. Chaos, 2017, 27, 093939.	1.0	18
76	Reduced Basis Methods for Uncertainty Quantification. SIAM-ASA Journal on Uncertainty Quantification, 2017, 5, 813-869.	1.1	41
77	A computational fluidâ€“structure interaction analysis of coronary Y-grafts. Medical Engineering and Physics, 2017, 47, 117-127.	0.8	21
78	A patient-specific aortic valve model based on moving resistive immersed implicit surfaces. Biomechanics and Modeling in Mechanobiology, 2017, 16, 1779-1803.	1.4	41
79	Improved hybrid/GPU algorithm for solving cardiac electrophysiology problems on Purkinje networks. International Journal for Numerical Methods in Biomedical Engineering, 2017, 33, e2835.	1.0	3
80	Computational comparison of aortic root stresses in presence of stentless and stented aortic valve bio-prostheses. Computer Methods in Biomechanics and Biomedical Engineering, 2017, 20, 171-181.	0.9	18
81	Computational study of the risk of restenosis in coronary bypasses. Biomechanics and Modeling in Mechanobiology, 2017, 16, 313-332.	1.4	15
82	Isogeometric analysis and proper orthogonal decomposition for the acoustic wave equation. ESAIM: Mathematical Modelling and Numerical Analysis, 2017, 51, 1197-1221.	0.8	17
83	Modelli Per comprendere, simulare, progettare. Lettera Matematica Pristem, 2017, 100, 72-75.	0.0	0
84	Numerical Models for Differential Problems. Modeling, Simulation and Applications, 2017, , .	1.3	37
85	A Patient-Specific Computational Fluid Dynamics Model of the Left Atrium in Atrial Fibrillation: Development and Initial Evaluation. Lecture Notes in Computer Science, 2017, , 392-400.	1.0	20
86	hp-Version Discontinuous Galerkin Approximations of the Elastodynamics Equation. Lecture Notes in Computational Science and Engineering, 2017, , 3-19.	0.1	6
87	A Parallel Algorithm for the Solution of Large-Scale Nonconforming Fluid-Structure Interaction Problems in Hemodynamics. Journal of Computational Mathematics, 2017, 35, 363-380.	0.2	7
88	Metal artefact reduction in computed tomography images by a fourth-order total variation flow. Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization, 2016, 4, 202-213.	1.3	3
89	Numerical modeling of heart valves using resistive Eulerian surfaces. International Journal for Numerical Methods in Biomedical Engineering, 2016, 32, e02743.	1.0	16
90	A discontinuous Galerkin reduced basis element method for elliptic problems. ESAIM: Mathematical Modelling and Numerical Analysis, 2016, 50, 337-360.	0.8	16

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91	Nitscheâ€™s method for parabolic partial differential equations with mixed time varying boundary conditions. ESAIM: Mathematical Modelling and Numerical Analysis, 2016, 50, 541-563.	0.8	3
92	An online intrinsic stabilization strategy for the reduced basis approximation of parametrized advection-dominated problems. Comptes Rendus Mathematique, 2016, 354, 1188-1194.	0.1	4
93	Reduced basis method and domain decomposition for elliptic problems in networks and complex parametrized geometries. Computers and Mathematics With Applications, 2016, 71, 408-430.	1.4	42
94	High order discontinuous Galerkin methods on simplicial elements for the elastodynamics equation. Numerical Algorithms, 2016, 71, 181-206.	1.1	23
95	INTERNODES: an accurate interpolation-based method for coupling the Galerkin solutions of PDEs on subdomains featuring non-conforming interfaces. Computers and Fluids, 2016, 141, 22-41.	1.3	24
96	Fast simulations of patient-specific haemodynamics of coronary artery bypass grafts based on a PODâ€“Galerkin method and a vascular shape parametrization. Journal of Computational Physics, 2016, 315, 609-628.	1.9	74
97	The Interface Control Domain Decomposition Method for Stokes--Darcy Coupling. SIAM Journal on Numerical Analysis, 2016, 54, 1039-1068.	1.1	16
98	Multilevel and weighted reduced basis method for stochastic optimal control problems constrained by Stokes equations. Numerische Mathematik, 2016, 133, 67-102.	0.9	35
99	Parameter estimates for the Relaxed Dimensional Factorization preconditioner and application to hemodynamics. Computer Methods in Applied Mechanics and Engineering, 2016, 300, 129-145.	3.4	26
100	Isogeometric Analysis of geometric Partial Differential Equations. Computer Methods in Applied Mechanics and Engineering, 2016, 311, 625-647.	3.4	10
101	FaCSI: A block parallel preconditioner for fluidâ€“structure interaction in hemodynamics. Journal of Computational Physics, 2016, 327, 700-718.	1.9	47
102	An Offline-Online Riemann Solver for One-Dimensional Systems of Conservation Laws. Vietnam Journal of Mathematics, 2016, 44, 873-891.	0.4	0
103	A Fluidâ€“Structure Interaction Algorithm Using Radial Basis Function Interpolation Between Non-Conforming Interfaces. Modeling and Simulation in Science, Engineering and Technology, 2016, , 439-450.	0.4	7
104	Numerical modeling of fluidâ€“structure interaction in arteries with anisotropic polyconvex hyperelastic and anisotropic viscoelastic material models at finite strains. International Journal for Numerical Methods in Biomedical Engineering, 2016, 32, e02756.	1.0	36
105	A Time-Parallel Framework for Coupling Finite Element and Lattice Boltzmann Methods. Applied Mathematics Research EXpress, 2016, 2016, 24-67.	1.0	5
106	Spectral based Discontinuous Galerkin Reduced Basis Element method for parametrized Stokes problems. Computers and Mathematics With Applications, 2016, 72, 1977-1987.	1.4	5
107	Stability Analysis of Discontinuous Galerkin Approximations to the Elastodynamics Problem. Journal of Scientific Computing, 2016, 68, 143-170.	1.1	32
108	A numerical study of isotropic and anisotropic constitutive models with relevance to healthy and unhealthy cerebral arterial tissues. International Journal of Engineering Science, 2016, 101, 126-155.	2.7	17

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109	A coupled 3Dâ€“1D numerical monodomain solver for cardiac electrical activation in the myocardium with detailed Purkinje network. Journal of Computational Physics, 2016, 308, 218-238.	1.9	29
110	Geometric multiscale modeling of the cardiovascular system, between theory and practice. Computer Methods in Applied Mechanics and Engineering, 2016, 302, 193-252.	3.4	144
111	Reduced Basis Methods for Partial Differential Equations. Unitext, 2016, , .	0.0	208
112	Reduced Basis Method for the Stokes Equations in Decomposable Parametrized Domains Using Greedy Optimization. Mathematics in Industry, 2016, , 647-654.	0.1	0
113	The research of Alberto Valli. Discrete and Continuous Dynamical Systems - Series S, 2016, 9, xi-xvii.	0.6	0
114	Dimensionality reduction of parameter-dependent problems through proper orthogonal decomposition. Annals of Mathematical Sciences and Applications, 2016, 1, 341-377.	0.2	5
115	Supremizer stabilization of PODâ€“Galerkin approximation of parametrized steady incompressible Navierâ€“Stokes equations. International Journal for Numerical Methods in Engineering, 2015, 102, 1136-1161.	1.5	180
116	Reduced basis techniques for nonlinear conservation laws. ESAIM: Mathematical Modelling and Numerical Analysis, 2015, 49, 787-814.	0.8	43
117	Finite element and finite volume-element simulation of pseudo-ECGs and cardiac alternans. Mathematical Methods in the Applied Sciences, 2015, 38, 1046-1058.	1.2	12
118	Well-Posedness, Regularity, and Convergence Analysis of the Finite Element Approximation of a Generalized Robin Boundary Value Problem. SIAM Journal on Numerical Analysis, 2015, 53, 105-126.	1.1	24
119	Multiscale homogenization for fluid and drug transport in vascularized malignant tissues. Mathematical Models and Methods in Applied Sciences, 2015, 25, 79-108.	1.7	66
120	Solvability analysis and numerical approximation of linearized cardiac electromechanics. Mathematical Models and Methods in Applied Sciences, 2015, 25, 959-993.	1.7	10
121	Fluid-structure interaction simulations of cerebral arteries modeled by isotropic and anisotropic constitutive laws. Computational Mechanics, 2015, 55, 479-498.	2.2	15
122	A new algorithm for high-dimensional uncertainty quantification based on dimension-adaptive sparse grid approximation and reduced basis methods. Journal of Computational Physics, 2015, 298, 176-193.	1.9	38
123	Isogeometric Analysis of high order Partial Differential Equations on surfaces. Computer Methods in Applied Mechanics and Engineering, 2015, 295, 446-469.	3.4	73
124	Isogeometric Analysis for second order Partial Differential Equations on surfaces. Computer Methods in Applied Mechanics and Engineering, 2015, 284, 807-834.	3.4	37
125	Isogeometric numerical dispersion analysis for two-dimensional elastic wave propagation. Computer Methods in Applied Mechanics and Engineering, 2015, 284, 320-348.	3.4	52
126	Efficient Numerical Schemes for Computing Cardiac Electrical Activation over Realistic Purkinje Networks: Method and Verification. Lecture Notes in Computer Science, 2015, , 430-438.	1.0	2

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127	Computational generation of the Purkinje network driven by clinical measurements: The case of pathological propagations. International Journal for Numerical Methods in Biomedical Engineering, 2014, 30, 1558-1577.	1.0	23
128	Interface control domain decomposition methods for heterogeneous problems. International Journal for Numerical Methods in Fluids, 2014, 76, 471-496.	0.9	11
129	A Rescaled Localized Radial Basis Function Interpolation on Non-Cartesian and Nonconforming Grids. SIAM Journal of Scientific Computing, 2014, 36, A2745-A2762.	1.3	46
130	Greedy Sampling Using Nonlinear Optimization. , 2014, , 137-157.		8
131	A weighted empirical interpolation method:a prioriconvergence analysis and applications. ESAIM: Mathematical Modelling and Numerical Analysis, 2014, 48, 943-953.	0.8	18
132	High Order Space-Time Discretization for Elastic Wave Propagation Problems. Lecture Notes in Computational Science and Engineering, 2014, , 87-97.	0.1	8
133	Parallel preconditioners for the unsteady Navierâ€“Stokes equations and applications to hemodynamics simulations. Computers and Fluids, 2014, 92, 253-273.	1.3	24
134	Comparison Between Reduced Basis and Stochastic Collocation Methods for Elliptic Problems. Journal of Scientific Computing, 2014, 59, 187-216.	1.1	54
135	Comparisons between reduced order models and full 3D models for fluidâ€“structure interaction problems in haemodynamics. Journal of Computational and Applied Mathematics, 2014, 265, 120-138.	1.1	46
136	Numerical Models for Differential Problems. , 2014, , .		38
137	An orthotropic activeâ€“strain model for the myocardium mechanics and its numerical approximation. European Journal of Mechanics, A/Solids, 2014, 48, 83-96.	2.1	40
138	Mathematical modelling of active contraction in isolated cardiomyocytes. Mathematical Medicine and Biology, 2014, 31, 259-283.	0.8	52
139	Weighted Reduced Basis Method for Stochastic Optimal Control Problems with Elliptic PDE Constraint. SIAM-ASA Journal on Uncertainty Quantification, 2014, 2, 364-396.	1.1	44
140	Isogeometric Analysis and error estimates for high order partial differential equations in fluid dynamics. Computers and Fluids, 2014, 102, 277-303.	1.3	81
141	Patient-specific generation of the Purkinje network driven by clinical measurements of a normal propagation. Medical and Biological Engineering and Computing, 2014, 52, 813-826.	1.6	44
142	Thermodynamically consistent orthotropic activation model capturing ventricular systolic wall thickening in cardiac electromechanics. European Journal of Mechanics, A/Solids, 2014, 48, 129-142.	2.1	82
143	Window Proper Orthogonal Decomposition: Application to Continuum and Atomistic Data. , 2014, , 275-303.		1
144	Case Study: Parametrized Reduction Using Reduced-Basis and the Loewner Framework. , 2014, , 51-66.		1

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145	Comparison of Some Reduced Representation Approximations. , 2014, , 67-100.		5
146	Application of the Discrete Empirical Interpolation Method to Reduced Order Modeling of Nonlinear and Parametric Systems. , 2014, , 101-136.		16
147	A Robust Algorithm for Parametric Model Order Reduction Based on Implicit Moment Matching. , 2014, , 159-185.		36
148	On the Use of Reduced Basis Methods to Accelerate and Stabilize the Parareal Method. , 2014, , 187-214.		14
149	On the Stability of Reduced-Order Linearized Computational Fluid Dynamics Models Based on POD and Galerkin Projection: Descriptor vs Non-Descriptor Forms. , 2014, , 215-233.		6
150	Model Order Reduction in Fluid Dynamics: Challenges and Perspectives. , 2014, , 235-273.		72
151	A Reduced-Order Strategy for Solving Inverse Bayesian Shape Identification Problems in Physiological Flows. , 2014, , 145-155.		3
152	Reduced Order Models at Work in Aeronautics and Medicine. , 2014, , 305-332.		1
153	A Novel Approach to Model Order Reduction for Coupled Multiphysics Problems. , 2014, , 1-49.		0
154	Numerical simulation of orbitally shaken viscous fluids with free surface. International Journal for Numerical Methods in Fluids, 2013, 71, 294-315.	0.9	27
155	Convergence of a stabilized discontinuous Galerkin method for incompressible nonlinear elasticity. Advances in Computational Mathematics, 2013, 39, 425-443.	0.8	14
156	Reduced Basis Method for Parametrized Elliptic Optimal Control Problems. SIAM Journal of Scientific Computing, 2013, 35, A2316-A2340.	1.3	69
157	The Interface Control Domain Decomposition (ICDD) Method for Elliptic Problems. SIAM Journal on Control and Optimization, 2013, 51, 3434-3458.	1.1	21
158	A vision and strategy for the virtual physiological human: 2012 update. Interface Focus, 2013, 3, 20130004.	1.5	74
159	On the physical consistency between three-dimensional and one-dimensional models in haemodynamics. Journal of Computational Physics, 2013, 244, 97-112.	1.9	41
160	Numerical simulation of left ventricular assist device implantations: Comparing the ascending and the descending aorta cannulations. Medical Engineering and Physics, 2013, 35, 1465-1475.	0.8	23
161	Accurate and efficient evaluation of failure probability for partial different equations with random input data. Computer Methods in Applied Mechanics and Engineering, 2013, 267, 233-260.	3.4	36
162	Physiological simulation of blood flow in the aorta: Comparison of hemodynamic indices as predicted by 3-D FSI, 3-D rigid wall and 1-D models. Medical Engineering and Physics, 2013, 35, 784-791.	0.8	137

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163	Radial basis functions for inter-grid interpolation and mesh motion in FSI problems. Computer Methods in Applied Mechanics and Engineering, 2013, 256, 117-131.	3.4	25
164	Helical flows and asymmetry of blood jet in dilated ascending aorta with normally functioning bicuspid valve. Biomechanics and Modeling in Mechanobiology, 2013, 12, 801-813.	1.4	52
165	Implicit Coupling of One-Dimensional and Three-Dimensional Blood Flow Models with Compliant Vessels. Multiscale Modeling and Simulation, 2013, 11, 474-506.	0.6	32
166	Simulationâ€based uncertainty quantification of human arterial network hemodynamics. International Journal for Numerical Methods in Biomedical Engineering, 2013, 29, 698-721.	1.0	61
167	A reduced computational and geometrical framework for inverse problems in hemodynamics. International Journal for Numerical Methods in Biomedical Engineering, 2013, 29, 741-776.	1.0	78
168	Activation Models for the Numerical Simulation of Cardiac Electromechanical Interactions. , 2013, , 189-201.		5
169	Asymptotic-numerical derivation of the Robin type coupling conditions for the macroscopic pressure at a reservoirâ€“capillaries interface. Applicable Analysis, 2013, 92, 158-171.	0.6	11
170	Numerical Approximation of Internal Discontinuity Interface Problems. SIAM Journal of Scientific Computing, 2013, 35, A2341-A2369.	1.3	7
171	A Weighted Reduced Basis Method for Elliptic Partial Differential Equations with Random Input Data. SIAM Journal on Numerical Analysis, 2013, 51, 3163-3185.	1.1	50
172	Fully Eulerian finite element approximation of a fluidâ€structure interaction problem in cardiac cells. International Journal for Numerical Methods in Engineering, 2013, 96, 712-738.	1.5	20
173	Stochastic Optimal Robin Boundary Control Problems of Advection-Dominated Elliptic Equations. SIAM Journal on Numerical Analysis, 2013, 51, 2700-2722.	1.1	40
174	Boundary control and shape optimization for the robust design of bypass anastomoses under uncertainty. ESAIM: Mathematical Modelling and Numerical Analysis, 2013, 47, 1107-1131.	0.8	22
175	Generalized Reduced Basis Methods and n-Width Estimates for the Approximation of the Solution Manifold of Parametric PDEs. Springer INdAM Series, 2013, , 307-329.	0.4	14
176	The interface control domain decomposition (ICDD) method for the Stokes problem. Journal of Coupled Systems and Multiscale Dynamics, 2013, 1, 372-392.	0.2	2
177	Mortar Coupling for Heterogeneous Partial Differential Equations. Lecture Notes in Computational Science and Engineering, 2013, , 419-426.	0.1	1
178	Connecting Ventricular Assist Devices to the Aorta: A Numerical Model. , 2012, , 211-224.		2
179	A Reduced Basis Model with Parametric Coupling for Fluid-Structure Interaction Problems. SIAM Journal of Scientific Computing, 2012, 34, A1187-A1213.	1.3	25
180	Computational Reduction for Parametrized PDEs: Strategies and Applications. Milan Journal of Mathematics, 2012, 80, 283-309.	0.7	33

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