Toni Lassila

List of Publications by Year
in descending order

29	886	567144 15	552653 26
papers	citations	h-index	g-index

30	30	30	847
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	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
2	Parametric free-form shape design with PDE models and reduced basis method. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 1583-1592.	3.4	101
3	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
4	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
5	Model Order Reduction in Fluid Dynamics: Challenges and Perspectives. , 2014, , 235-273.		72
6	Subject-specific multi-poroelastic model for exploring the risk factors associated with the early stages of Alzheimer's disease. Interface Focus, 2018, 8, 20170019.	1.5	49
7	Accurate Solution of Bayesian Inverse Uncertainty Quantification Problems Combining Reduced Basis Methods and Reduction Error Models. SIAM-ASA Journal on Uncertainty Quantification, 2016, 4, 380-412.	1.1	31
8	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
9	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
10	A Reduced Basis Model with Parametric Coupling for Fluid-Structure Interaction Problems. SIAM Journal of Scientific Computing, 2012, 34, A1187-A1213.	1.3	25
11	In-silico trial of intracranial flow diverters replicates and expands insights from conventional clinical trials. Nature Communications, 2021, 12, 3861.	5.8	25
12	Fluidâ€"structure interaction for highly complex, statistically defined, biological media: Homogenisation and a 3D multi-compartmental poroelastic model for brain biomechanics. Journal of Fluids and Structures, 2019, 91, 102641.	1.5	24
13	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
14	Uncertainty quantification of wall shear stress in intracranial aneurysms using a data-driven statistical model of systemic blood flow variability. Journal of Biomechanics, 2016, 49, 3815-3823.	0.9	22
15	A computational model for prediction of clot platelet content in flow-diverted intracranial aneurysms. Journal of Biomechanics, 2019, 91, 7-13.	0.9	22
16	On the approximation of stability factors for general parametrized partial differential equations with a two-level affine decomposition. ESAIM: Mathematical Modelling and Numerical Analysis, 2012, 46, 1555-1576.	0.8	15
17	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
18	Screening for Cognitive Impairment by Model-Assisted Cerebral Blood Flow Estimation. IEEE Transactions on Biomedical Engineering, 2018, 65, 1654-1661.	2.5	13

#	Article	IF	Citations
19	Virtual endovascular treatment of intracranial aneurysms: models and uncertainty. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2017, 9, e1385.	6.6	11
20	Optimal damping of a membrane and topological shape optimization. Structural and Multidisciplinary Optimization, 2009, 38, 43-52.	1.7	8
21	Protective Role of False Tendon in Subjects with Left Bundle Branch Block: A Virtual Population Study. PLoS ONE, 2016, 11, e0146477.	1.1	8
22	Populationâ€specific modelling of between/withinâ€subject flow variability in the carotid arteries of the elderly. International Journal for Numerical Methods in Biomedical Engineering, 2020, 36, e3271.	1.0	4
23	Model reduction of semiaffinely parameterized partial differential equations by two-level affine approximation. Comptes Rendus Mathematique, 2011, 349, 61-66.	0.1	3
24	A Reduced-Order Strategy for Solving Inverse Bayesian Shape Identification Problems in Physiological Flows. , 2014, , 145-155.		3
25	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
26	Direct Estimation of Wall Shear Stress from Aneurysmal Morphology: A Statistical Approach. Lecture Notes in Computer Science, 2016, , 201-209.	1.0	1
27	Reduction Strategies for Shape Dependent Inverse Problems in Haemodynamics. International Federation for Information Processing, 2013, , 397-406.	0.4	1
28	Electrophysiology Model for a Human Heart with Ischemic Scar and Realistic Purkinje Network. Lecture Notes in Computer Science, 2016, , 90-97.	1.0	1
29	Optimization of Convex Shapes: An Approach to Crystal Shape Identification. Lecture Notes in Computer Science, 2009, , 660-671.	1.0	0