

# Luca Ded

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/5534421/luca-dede-publications-by-citations.pdf>

**Version:** 2024-04-26

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

80  
papers

1,545  
citations

20  
h-index

37  
g-index

85  
ext. papers

2,004  
ext. citations

3.6  
avg, IF

5.5  
L-index

#	Paper	IF	Citations
80	An isogeometric design-through-analysis methodology based on adaptive hierarchical refinement of NURBS, immersed boundary methods, and T-spline CAD surfaces. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2012</b> , 249-252, 116-150	5.7	312
79	Isogeometric Analysis for Topology Optimization with a Phase Field Model. <i>Archives of Computational Methods in Engineering</i> , <b>2012</b> , 19, 427-465	7.8	173
78	Isogeometric analysis of the advective Cahn-Hilliard equation: Spinodal decomposition under shear flow. <i>Journal of Computational Physics</i> , <b>2013</b> , 242, 321-350	4.1	77
77	Isogeometric Analysis and error estimates for high order partial differential equations in fluid dynamics. <i>Computers and Fluids</i> , <b>2014</b> , 102, 277-303	2.8	66
76	Isogeometric Analysis of high order Partial Differential Equations on surfaces. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2015</b> , 295, 446-469	5.7	61
75	Semi-implicit BDF time discretization of the Navier-Stokes equations with VMS-LES modeling in a High Performance Computing framework. <i>Computers and Fluids</i> , <b>2015</b> , 117, 168-182	2.8	46
74	Isogeometric numerical dispersion analysis for two-dimensional elastic wave propagation. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2015</b> , 284, 320-348	5.7	40
73	The Impact of Left Atrium Appendage Morphology on Stroke Risk Assessment in Atrial Fibrillation: A Computational Fluid Dynamics Study. <i>Frontiers in Physiology</i> , <b>2018</b> , 9, 1938	4.6	38
72	Optimal control and numerical adaptivity for advection-diffusion equations. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , <b>2005</b> , 39, 1019-1040	1.8	31
71	A Comprehensive Deep Learning-Based Approach to Reduced Order Modeling of Nonlinear Time-Dependent Parametrized PDEs. <i>Journal of Scientific Computing</i> , <b>2021</b> , 87, 1	2.3	30
70	Isogeometric Analysis for second order Partial Differential Equations on surfaces. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2015</b> , 284, 807-834	5.7	29
69	Reduced Basis Method and A Posteriori Error Estimation for Parametrized Linear-Quadratic Optimal Control Problems. <i>SIAM Journal of Scientific Computing</i> , <b>2010</b> , 32, 997-1019	2.6	29
68	Machine learning for fast and reliable solution of time-dependent differential equations. <i>Journal of Computational Physics</i> , <b>2019</b> , 397, 108852	4.1	28
67	A monolithic algorithm for the simulation of cardiac electromechanics in the human left ventricle. <i>Mathematics in Engineering</i> , <b>2018</b> , 1, 1-37	1.2	25
66	Isogeometric rotation-free analysis of planar extensible-elastica for static and dynamic applications. <i>Nonlinear Dynamics</i> , <b>2015</b> , 81, 77-96	5	24
65	Mathematical Modelling of the Human Cardiovascular System: Data, Numerical Approximation, Clinical Applications <b>2019</b> ,		24
64	A patient-specific aortic valve model based on moving resistive immersed implicit surfaces. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2017</b> , 16, 1779-1803	3.8	23

63	Machine learning of multiscale active force generation models for the efficient simulation of cardiac electromechanics. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2020</b> , 370, 113268	5.7	21
62	Modeling cardiac muscle fibers in ventricular and atrial electrophysiology simulations. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2021</b> , 373, 113468	5.7	21
61	Optimal flow control for Navier-Stokes equations: drag minimization. <i>International Journal for Numerical Methods in Fluids</i> , <b>2007</b> , 55, 347-366	1.9	20
60	Well-Posedness, Regularity, and Convergence Analysis of the Finite Element Approximation of a Generalized Robin Boundary Value Problem. <i>SIAM Journal on Numerical Analysis</i> , <b>2015</b> , 53, 105-126	2.4	19
59	A Hele-Shaw-Cahn-Hilliard Model for Incompressible Two-Phase Flows with Different Densities. <i>Journal of Mathematical Fluid Mechanics</i> , <b>2018</b> , 20, 531-567	1.4	19
58	Isogeometric approximation of cardiac electrophysiology models on surfaces: An accuracy study with application to the human left atrium. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2017</b> , 317, 248-273	5.7	18
57	Reduced Basis Method and Error Estimation for Parametrized Optimal Control Problems with Control Constraints. <i>Journal of Scientific Computing</i> , <b>2012</b> , 50, 287-305	2.3	18
56	B-spline goal-oriented error estimators for geometrically nonlinear rods. <i>Computational Mechanics</i> , <b>2012</b> , 49, 35-52	4	18
55	A Proof of Concept for Computational Fluid Dynamic Analysis of the Left Atrium in Atrial Fibrillation on a Patient-Specific Basis. <i>Journal of Biomechanical Engineering</i> , <b>2020</b> , 142,	2.1	18
54	Deep learning-based reduced order models in cardiac electrophysiology. <i>PLoS ONE</i> , <b>2020</b> , 15, e0239416	3.7	18
53	Anisotropic error control for environmental applications. <i>Applied Numerical Mathematics</i> , <b>2008</b> , 58, 1320-1339	2.1	17
52	Biophysically detailed mathematical models of multiscale cardiac active mechanics. <i>PLoS Computational Biology</i> , <b>2020</b> , 16, e1008294	5	17
51	Isogeometric analysis and proper orthogonal decomposition for parabolic problems. <i>Numerische Mathematik</i> , <b>2017</b> , 135, 333-370	2.2	15
50	Fluid dynamics of an idealized left ventricle: the extended Nitsche's method for the treatment of heart valves as mixed time varying boundary conditions. <i>International Journal for Numerical Methods in Fluids</i> , <b>2017</b> , 85, 135-164	1.9	15
49	IGS: An IsoGeometric approach for smoothing on surfaces. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2016</b> , 302, 70-89	5.7	15
48	A numerical study of isotropic and anisotropic constitutive models with relevance to healthy and unhealthy cerebral arterial tissues. <i>International Journal of Engineering Science</i> , <b>2016</b> , 101, 126-155	5.7	15
47	Isogeometric Analysis of the electrophysiology in the human heart: Numerical simulation of the bidomain equations on the atria. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2019</b> , 343, 52-73	5.7	15
46	Complex blood flow patterns in an idealized left ventricle: A numerical study. <i>Chaos</i> , <b>2017</b> , 27, 093939	3.3	13

45	Fluid-structure interaction simulations of cerebral arteries modeled by isotropic and anisotropic constitutive laws. <i>Computational Mechanics</i> , <b>2015</b> , 55, 479-498	4	13
44	Active contraction of cardiac cells: a reduced model for sarcomere dynamics with cooperative interactions. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2018</b> , 17, 1663-1686	3.8	13
43	Outer loop and isthmus in ventricular tachycardia circuits: Characteristics and implications. <i>Heart Rhythm</i> , <b>2020</b> , 17, 1719-1728	6.7	11
42	Numerical approximation of the electromechanical coupling in the left ventricle with inclusion of the Purkinje network. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2018</b> , 34, e2984	2.6	10
41	Isogeometric analysis and proper orthogonal decomposition for the acoustic wave equation. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , <b>2017</b> , 51, 1197-1221	1.8	9
40	Multipatch Isogeometric Analysis for electrophysiology: Simulation in a human heart. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2021</b> , 376, 113666	5.7	9
39	An intergrid transfer operator using radial basis functions with application to cardiac electromechanics. <i>Computational Mechanics</i> , <b>2020</b> , 66, 491-511	4	8
38	A transmurally heterogeneous orthotropic activation model for ventricular contraction and its numerical validation. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2018</b> , 34, e3137	2.6	7
37	Electromechanical modeling of human ventricles with ischemic cardiomyopathy: numerical simulations in sinus rhythm and under arrhythmia. <i>Computers in Biology and Medicine</i> , <b>2021</b> , 136, 104674	7	7
36	Reduced Basis Method for Parametrized Elliptic Advection-Reaction Problems. <i>Journal of Computational Mathematics</i> , <b>2010</b> , 28, 122-148	2.1	6
35	An image-based computational hemodynamics study of the Systolic Anterior Motion of the mitral valve. <i>Computers in Biology and Medicine</i> , <b>2020</b> , 123, 103922	7	6
34	Isogeometric Analysis of geometric Partial Differential Equations. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2016</b> , 311, 625-647	5.7	6
33	Computational fluid dynamics of blood flow in an idealized left human heart. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2021</b> , 37, e3287	2.6	6
32	Hemodynamics of the heart's left atrium based on a Variational Multiscale-LES numerical method. <i>European Journal of Mechanics, B/Fluids</i> , <b>2021</b> , 89, 380-400	2.4	6
31	Effect of fibre orientation and bulk modulus on the electromechanical modelling of human ventricles. <i>Mathematics in Engineering</i> , <b>2020</b> , 2, 614-638	1.2	5
30	A Patient-Specific Computational Fluid Dynamics Model of the Left Atrium in Atrial Fibrillation: Development and Initial Evaluation. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 392-400	0.9	5
29	Active Force Generation in Cardiac Muscle Cells: Mathematical Modeling and Numerical Simulation of the Actin-Myosin Interaction. <i>Vietnam Journal of Mathematics</i> , <b>2021</b> , 49, 87-118	0.5	5
28	SUIHTER: a new mathematical model for COVID-19. Application to the analysis of the second epidemic outbreak in Italy.. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , <b>2021</b> , 477, 20210027	2.4	5

27	Data integration for the numerical simulation of cardiac electrophysiology. <i>PACE - Pacing and Clinical Electrophysiology</i> , <b>2021</b> , 44, 726-736	1.6	4
26	POD-Enhanced Deep Learning-Based Reduced Order Models for the Real-Time Simulation of Cardiac Electrophysiology in the Left Atrium. <i>Frontiers in Physiology</i> , <b>2021</b> , 12, 679076	4.6	4
25	A Computational Comparison Between Isogeometric Analysis and Spectral Element Methods: Accuracy and Spectral Properties. <i>Journal of Scientific Computing</i> , <b>2020</b> , 83, 1	2.3	3
24	Numerical Approximation of a Control Problem for Advection-Diffusion Processes <b>2005</b> , 261-273		3
23	The role of mechano-electric feedbacks and hemodynamic coupling in scar-related ventricular tachycardia.. <i>Computers in Biology and Medicine</i> , <b>2022</b> , 142, 105203	7	3
22	Nitsche's method for parabolic partial differential equations with mixed time varying boundary conditions. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , <b>2016</b> , 50, 541-563	1.8	3
21	Biomembrane modeling with isogeometric analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2019</b> , 347, 103-119	5.7	3
20	Isogeometric Analysis of a Phase Field Model for Darcy Flows with Discontinuous Data. <i>Chinese Annals of Mathematics Series B</i> , <b>2018</b> , 39, 487-512	0.4	2
19	3DD closed-loop model for the simulation of cardiac biventricular electromechanics. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2022</b> , 391, 114607	5.7	2
18	Segregated Algorithms for the Numerical Simulation of Cardiac Electromechanics in the Left Human Ventricle. <i>Lecture Notes in Mathematics</i> , <b>2020</b> , 81-116	0.4	2
17	A mathematical dashboard for the analysis of Italian COVID-19 epidemic data. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2021</b> , 37, e3513	2.6	2
16	Non intrusive reduced order modeling of parametrized PDEs by kernel POD and neural networks. <i>Computers and Mathematics With Applications</i> , <b>2021</b> , 104, 1-13	2.7	1
15	A Computational Study of the Electrophysiological Substrate in Patients Suffering From Atrial Fibrillation. <i>Frontiers in Physiology</i> , <b>2021</b> , 12, 673612	4.6	1
14	Mathematical and numerical models for the cardiac electromechanical function. <i>Atti Della Accademia Nazionale Dei Lincei, Classe Di Scienze Fisiche, Matematiche E Naturali, Rendiconti Lincei Matematica E Applicazioni</i> , <b>2021</b> , 32, 233-272	0.7	1
13	Mathematical analysis and numerical approximation of a general linearized poro-hyperelastic model. <i>Computers and Mathematics With Applications</i> , <b>2021</b> , 91, 202-228	2.7	1
12	Modeling the cardiac response to hemodynamic changes associated with COVID-19: a computational study. <i>Mathematical Biosciences and Engineering</i> , <b>2021</b> , 18, 3364-3383	2.1	1
11	A geometric multiscale model for the numerical simulation of blood flow in the human left heart. <i>Discrete and Continuous Dynamical Systems - Series S</i> , <b>2022</b> ,	2.8	1
10	Modelling the COVID-19 epidemic and the vaccination campaign in Italy by the SUIHTER model.. <i>Infectious Disease Modelling</i> , <b>2022</b> , 7, 45-63	15.7	1

9	Slow Conduction Corridors and Pivot Sites Characterize the Electrical Remodeling in Atrial Fibrillation.. <i>JACC: Clinical Electrophysiology</i> , <b>2022</b> , 8, 561-577	4.6	○
8	A machine learning approach to enhance the SUPG stabilization method for advection-dominated differential problems. <i>Mathematics in Engineering</i> , <b>2022</b> , 5, 1-26	1.2	○
7	Basic facts about quantitative physiology <b>2019</b> , 3-9		
6	Modelling blood flow <b>2019</b> , 25-76		
5	Modelling the heart <b>2019</b> , 102-152		
4	Parameter estimation from clinical data <b>2019</b> , 178-202		
3	Accounting for uncertainty <b>2019</b> , 203-224		
2	Reduced-order modelling <b>2019</b> , 225-234		
1	Characterization of cardiac electrogram signals in atrial arrhythmias. <i>Minerva Cardiology and Angiology</i> , <b>2021</b> , 69, 70-80	2.4	