

Jerome Droniou

List of Publications by Year in descending order

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51
papers

1,549
citations

361045

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h-index

315357

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51
all docs

51
docs citations

51
times ranked

644
citing authors

#	ARTICLE	IF	CITATIONS
1	Robust Hybrid High-Order Method on Polytopal Meshes with Small Faces. Computational Methods in Applied Mathematics, 2022, 22, 47-71.	0.4	15
2	Arbitrary-order pressure-robust DDR and VEM methods for the Stokes problem on polyhedral meshes. Computer Methods in Applied Mechanics and Engineering, 2022, 397, 115061.	3.4	12
3	An arbitrary-order method for magnetostatics on polyhedral meshes based on a discrete de Rham sequence. Journal of Computational Physics, 2021, 429, 109991.	1.9	9
4	Hessian discretisation method for fourth-order semi-linear elliptic equations: applications to the von Kármán and Navier–Stokes models. Advances in Computational Mathematics, 2021, 47, 1.	0.8	0
5	Gradient discretization of two-phase poro-mechanical models with discontinuous pressures at matrix fracture interfaces. ESAIM: Mathematical Modelling and Numerical Analysis, 2021, 55, 1741-1777.	0.8	5
6	Application of diffusion-advection equations to in-field monitoring of soil suction profiles. Computers and Geotechnics, 2021, 139, 104329.	2.3	1
7	High-order Mass-lumped Schemes for Nonlinear Degenerate Elliptic Equations. SIAM Journal on Numerical Analysis, 2020, 58, 153-188.	1.1	6
8	An Efficient Implementation of Mass Conserving Characteristic-Based Schemes in Two and Three Dimensions. SIAM Journal of Scientific Computing, 2020, 42, A1071-A1096.	1.3	0
9	The Gradient Discretization Method for Slow and Fast Diffusion Porous Media Equations. SIAM Journal on Numerical Analysis, 2020, 58, 1965-1992.	1.1	3
10	The Gradient Discretisation Method for Linear Advection Problems. Computational Methods in Applied Mathematics, 2020, 20, 437-458.	0.4	3
11	Unified Convergence Analysis of Numerical Schemes for a Miscible Displacement Problem. Foundations of Computational Mathematics, 2019, 19, 333-374.	1.5	4
12	Design and analysis of finite volume methods for elliptic equations with oblique derivatives; application to Earth gravity field modelling. Journal of Computational Physics, 2019, 398, 108876.	1.9	4
13	A mixed finite element method for a sixth-order elliptic problem. IMA Journal of Numerical Analysis, 2019, 39, 374-397.	1.5	6
14	The Hessian Discretisation Method for Fourth Order Linear Elliptic Equations. Journal of Scientific Computing, 2019, 78, 1405-1437.	1.1	3
15	An HMM–ELLAM scheme on generic polygonal meshes for miscible incompressible flows in porous media. Journal of Petroleum Science and Engineering, 2019, 172, 707-723.	2.1	6
16	Numerical analysis of a two-phase flow discrete fracture matrix model. Numerische Mathematik, 2019, 141, 21-62.	0.9	12
17	Convergence analysis of a family of ELLAM schemes for a fully coupled model of miscible displacement in porous media. Numerische Mathematik, 2019, 141, 353-397.	0.9	4
18	A Hybrid High-Order method for the incompressible Navier–Stokes equations based on Temam's device. Journal of Computational Physics, 2019, 376, 786-816.	1.9	24

#	ARTICLE	IF	CITATIONS
19	Discontinuous Skeletal Gradient Discretisation methods on polytopal meshes. <i>Journal of Computational Physics</i> , 2018, 355, 397-425.	1.9	46
20	Numerical Analysis for the Pure Neumann Control Problem Using the Gradient Discretisation Method. <i>Computational Methods in Applied Mathematics</i> , 2018, 18, 609-637.	0.4	1
21	A Gradient Discretization Method to Analyze Numerical Schemes for Nonlinear Variational Inequalities, Application to the Seepage Problem. <i>SIAM Journal on Numerical Analysis</i> , 2018, 56, 2375-2405.	1.1	7
22	A third Strang lemma and an Aubin-Nitsche trick for schemes in fully discrete formulation. <i>Calcolo</i> , 2018, 55, 1.	0.6	20
23	An Eclectic View on Numerical Methods for PDEs: Presentation of the Special Issue "Advanced Numerical Methods: Recent Developments, Analysis and Applications". <i>Computational Methods in Applied Mathematics</i> , 2018, 18, 323-325.	0.4	0
24	A Hybrid High-Order discretisation of the Brinkman problem robust in the Darcy and Stokes limits. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 341, 278-310.	3.4	29
25	Improved L^2 estimate for gradient schemes and super-convergence of the TPFA finite volume scheme. <i>IMA Journal of Numerical Analysis</i> , 2018, 38, 1254-1293.	1.5	18
26	An Arbitrary-Order Scheme on Generic Meshes for Miscible Displacements in Porous Media. <i>SIAM Journal of Scientific Computing</i> , 2018, 40, B1020-B1054.	1.3	10
27	W_s, p -approximation properties of elliptic projectors on polynomial spaces, with application to the error analysis of a Hybrid High-Order discretisation of Leray-Lions problems. <i>Mathematical Models and Methods in Applied Sciences</i> , 2017, 27, 879-908.	1.7	33
28	Gradient schemes for the Signorini and the obstacle problems, and application to hybrid mimetic mixed methods. <i>Computers and Mathematics With Applications</i> , 2016, 72, 2788-2807.	1.4	11
29	Gradient Schemes for Stokes problem. <i>IMA Journal of Numerical Analysis</i> , 2016, 36, 1636-1669.	1.5	15
30	Uniform-in-time convergence of numerical methods for non-linear degenerate parabolic equations. <i>Numerische Mathematik</i> , 2016, 132, 721-766.	0.9	34
31	Convergence in $C([0, T]; L^2(\hat{\Omega}))$ of weak solutions to perturbed doubly degenerate parabolic equations. <i>Journal of Differential Equations</i> , 2016, 260, 7821-7860.	1.1	15
32	A Discontinuous-Skeletal Method for Advection-Diffusion-Reaction on General Meshes. <i>SIAM Journal on Numerical Analysis</i> , 2015, 53, 2135-2157.	1.1	58
33	Gradient schemes for linear and non-linear elasticity equations. <i>Numerische Mathematik</i> , 2015, 129, 251-277.	0.9	14
34	Finite volume schemes for diffusion equations: Introduction to and review of modern methods. <i>Mathematical Models and Methods in Applied Sciences</i> , 2014, 24, 1575-1619.	1.7	209
35	On a Miscible Displacement Model in Porous Media Flow with Measure Data. <i>SIAM Journal on Mathematical Analysis</i> , 2014, 46, 3158-3175.	0.9	12
36	GRADIENT SCHEMES: A GENERIC FRAMEWORK FOR THE DISCRETISATION OF LINEAR, NONLINEAR AND NONLOCAL ELLIPTIC AND PARABOLIC EQUATIONS. <i>Mathematical Models and Methods in Applied Sciences</i> , 2013, 23, 2395-2432.	1.7	96

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37	Convergence rate of the Allen-Cahn equation to generalized motion by mean curvature. Journal of Evolution Equations, 2012, 12, 267-294.	0.6	2
38	Construction and Convergence Study of Schemes Preserving the Elliptic Local Maximum Principle. SIAM Journal on Numerical Analysis, 2011, 49, 459-490.	1.1	84
39	Finite-volume schemes for noncoercive elliptic problems with Neumann boundary conditions. IMA Journal of Numerical Analysis, 2011, 31, 61-85.	1.5	40
40	A unified approach for handling convection terms in finite volumes and mimetic discretization methods for elliptic problems. IMA Journal of Numerical Analysis, 2011, 31, 1357-1401.	1.5	44
41	A numerical method for fractal conservation laws. Mathematics of Computation, 2010, 79, 95-95.	1.1	38
42	A UNIFIED APPROACH TO MIMETIC FINITE DIFFERENCE, HYBRID FINITE VOLUME AND MIXED FINITE VOLUME METHODS. Mathematical Models and Methods in Applied Sciences, 2010, 20, 265-295.	1.7	173
43	Noncoercive convection-diffusion elliptic problems with Neumann boundary conditions. Calculus of Variations and Partial Differential Equations, 2009, 34, 413-434.	0.9	27
44	Convergence Analysis of a Mixed Finite Volume Scheme for an Elliptic-Parabolic System Modeling Miscible Fluid Flows in Porous Media. SIAM Journal on Numerical Analysis, 2007, 45, 2228-2258.	1.1	32
45	Equivalence between entropy and renormalized solutions for parabolic equations with smooth measure data. Nonlinear Differential Equations and Applications, 2007, 14, 181-205.	0.4	51
46	Fractal First-Order Partial Differential Equations. Archive for Rational Mechanics and Analysis, 2006, 182, 299-331.	1.1	127
47	Parabolic Capacity and Soft Measures for Nonlinear Equations. Potential Analysis, 2003, 19, 99-161.	0.4	87
48	A Finite Volume Scheme for a Noncoercive Elliptic Equation with Measure Data. SIAM Journal on Numerical Analysis, 2003, 41, 1997-2031.	1.1	33
49	Convergence of a finite-volume mixed finite-element method for an elliptic-hyperbolic system. IMA Journal of Numerical Analysis, 2003, 23, 507-538.	1.5	5
50	A density result in Sobolev spaces. Journal Des Mathematiques Pures Et Appliquees, 2002, 81, 697-714.	0.8	8
51	Non-coercive Linear Elliptic Problems. Potential Analysis, 2002, 17, 181-203.	0.4	53