

Frederic Valentin

List of Publications by Year in descending order

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40
papers

737
citations

567281

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552781

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docs citations

41
times ranked

309
citing authors

#	ARTICLE	IF	CITATIONS
1	Towards multiscale functions: enriching finite element spaces with local but not bubble-like functions. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2005, 194, 3006-3021.	6.6	79
2	Stabilized Finite Element Methods Based on Multiscale Enrichment for the Stokes Problem. <i>SIAM Journal on Numerical Analysis</i> , 2006, 44, 322-348.	2.3	64
3	A family of Multiscale Hybrid-Mixed finite element methods for the Darcy equation with rough coefficients. <i>Journal of Computational Physics</i> , 2013, 245, 107-130.	3.8	64
4	Multiscale Hybrid-Mixed Method. <i>SIAM Journal on Numerical Analysis</i> , 2013, 51, 3505-3531.	2.3	62
5	An unusual stabilized finite element method for a generalized Stokes problem. <i>Numerische Mathematik</i> , 2002, 92, 653-677.	1.9	56
6	Convergence Analysis of a Multiscale Finite Element Method for Singularly Perturbed Problems. <i>Multiscale Modeling and Simulation</i> , 2005, 4, 839-866.	1.6	27
7	Asymptotics of the Poisson Problem in Domains with Curved Rough Boundaries. <i>SIAM Journal on Mathematical Analysis</i> , 2007, 38, 1450-1473.	1.9	27
8	Consistent Local Projection Stabilized Finite Element Methods. <i>SIAM Journal on Numerical Analysis</i> , 2010, 48, 1801-1825.	2.3	26
9	On a Multiscale Hybrid-Mixed Method for Advective-Reactive Dominated Problems with Heterogeneous Coefficients. <i>Multiscale Modeling and Simulation</i> , 2015, 13, 491-518.	1.6	26
10	A multiscale a posteriori error estimate. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2005, 194, 2077-2094.	6.6	23
11	A multiscale hybrid method for Darcy's problems using mixed finite element local solvers. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 354, 213-244.	6.6	23
12	Convergence Analysis of a Residual Local Projection Finite Element Method for the Navier-Stokes Equations. <i>SIAM Journal on Numerical Analysis</i> , 2012, 50, 669-699.	2.3	21
13	Multiscale hybrid-mixed method for the Stokes and Brinkman equations – The method. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017, 324, 29-53.	6.6	19
14	A hybrid-mixed method for elasticity. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2016, 50, 311-336.	1.9	18
15	A Petrov-Galerkin enriched method: A mass conservative finite element method for the Darcy equation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2007, 196, 2449-2464.	6.6	17
16	New Wall Laws for the Unsteady Incompressible Navier-Stokes Equations on Rough Domains. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2002, 36, 177-203.	1.9	15
17	Stabilization arising from PGEM: A review and further developments. <i>Applied Numerical Mathematics</i> , 2009, 59, 2065-2081.	2.1	15
18	A residual local projection method for the Oseen equation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2010, 199, 1906-1921.	6.6	15

#	ARTICLE	IF	CITATIONS
19	On the robustness of multiscale hybrid-mixed methods. <i>Mathematics of Computation</i> , 2016, 86, 525-548.	2.1	14
20	Beyond pressure stabilization: A low-order local projection method for the Oseen equation. <i>International Journal for Numerical Methods in Engineering</i> , 2011, 86, 801-815.	2.8	12
21	A stabilized finite-element method for the Stokes problem including element and edge residuals. <i>IMA Journal of Numerical Analysis</i> , 2007, 27, 172-197.	2.9	11
22	The multiscale hybrid mixed method in general polygonal meshes. <i>Numerische Mathematik</i> , 2020, 145, 197-237.	1.9	10
23	Relationship between multiscale enrichment and stabilized finite element methods for the generalized Stokes problem. <i>Comptes Rendus Mathematique</i> , 2005, 341, 635-640.	0.3	9
24	Numerical multiscale methods for a reaction-dominated model. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2012, 201-204, 228-244.	6.6	9
25	A Symmetric Nodal Conservative Finite Element Method for the Darcy Equation. <i>SIAM Journal on Numerical Analysis</i> , 2009, 47, 3652-3677.	2.3	8
26	The Multiscale Hybrid-Mixed method for the Maxwell Equations in Heterogeneous Media. <i>Multiscale Modeling and Simulation</i> , 2018, 16, 1648-1683.	1.6	8
27	On a residual local projection method for the Darcy equation. <i>Comptes Rendus Mathematique</i> , 2009, 347, 1105-1110.	0.3	7
28	An adaptive residual local projection finite element method for the Navier-Stokes equations. <i>Advances in Computational Mathematics</i> , 2014, 40, 1093-1119.	1.6	7
29	A Multiscale Hybrid-Mixed Method for the Helmholtz Equation in Heterogeneous Domains. <i>SIAM Journal on Numerical Analysis</i> , 2020, 58, 1029-1067.	2.3	7
30	Analysis of curvature influence on effective boundary conditions. <i>Comptes Rendus Mathematique</i> , 2002, 335, 499-504.	0.3	6
31	Weighted quadrature rules for finite element methods. <i>Journal of Computational and Applied Mathematics</i> , 2009, 227, 93-101.	2.0	6
32	On a hierarchical error estimator combined with a stabilized method for the Navier-Stokes equations. <i>Numerical Methods for Partial Differential Equations</i> , 2012, 28, 782-806.	3.6	6
33	A two-level enriched finite element method for a mixed problem. <i>Mathematics of Computation</i> , 2010, 80, 11-41.	2.1	4
34	New $H(\text{div})$ -conforming multiscale hybrid-mixed methods for the elasticity problem on polygonal meshes. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2021, 55, 1005-1037.	1.9	4
35	Bridging the multiscale hybrid-mixed and multiscale hybrid high-order methods. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2022, 56, 261-285.	1.9	4
36	On a multiscale a posteriori error estimator for the stokes and Brinkman equations. <i>IMA Journal of Numerical Analysis</i> , 2021, 41, 344-380.	2.9	2

#	ARTICLE	IF	CITATIONS
37	An adaptive multiscale hybrid-mixed method for the Oseen equations. <i>Advances in Computational Mathematics</i> , 2021, 47, 1.	1.6	2
38	Supporting the Perpetuation and Reproducibility of Numerical Method Publications. <i>Procedia Computer Science</i> , 2011, 4, 688-696.	2.0	1
39	A low-order local projection method for the incompressible Navier–Stokes equations in two- and three-dimensions. <i>IMA Journal of Numerical Analysis</i> , 2015, , drv004.	2.9	1
40	Stabilizing the $\hat{h}_{1,0}$ Element for the Stokes Problem via Multiscale Enrichment. , 2006, , 752-760.		1