Gabriel Barrenechea

List of Publications by Year
in descending order

40 papers	583 citations	623734 14 h-index	677142 22 g-index
40 all docs	40 docs citations	40 times ranked	255 citing authors

#	Article	IF	Citations
1	Stabilized Finite Element Methods Based on Multiscale Enrichment for the Stokes Problem. SIAM Journal on Numerical Analysis, 2006, 44, 322-348.	2.3	64
2	Analysis of Algebraic Flux Correction Schemes. SIAM Journal on Numerical Analysis, 2016, 54, 2427-2451.	2.3	58
3	An algebraic flux correction scheme satisfying the discrete maximum principle and linearity preservation on general meshes. Mathematical Models and Methods in Applied Sciences, 2017, 27, 525-548.	3.3	38
4	Edge-based nonlinear diffusion for finite element approximations of convectionâ€“diffusion equations and its relation to algebraic flux-correction schemes. Numerische Mathematik, 2017, 135, 521-545.	1.9	33
5	A unified analysis of algebraic flux correction schemes for convectionâ€“diffusion equations. SeMA Journal, 2018, 75, 655-685.	2.0	29
6	Consistent Local Projection Stabilized Finite Element Methods. SIAM Journal on Numerical Analysis, 2010, 48, 1801-1825.	2.3	26
7	Convergence Analysis of a Residual Local Projection Finite Element Method for the Navierâ€“Stokes Equations. SIAM Journal on Numerical Analysis, 2012, 50, 669-699.	2.3	21
8	A Petrovâ€“Galerkin enriched method: A mass conservative finite element method for the Darcy equation. Computer Methods in Applied Mechanics and Engineering, 2007, 196, 2449-2464.	6.6	17
9	Some analytical results for an algebraic flux correction scheme for a steady convectionâ€“diffusion equation in one dimension. IMA Journal of Numerical Analysis, 2015, 35, 1729-1756.	2.9	17
10	A divergence-free low-order stabilized finite element method for a generalized steady state Boussinesq problem. Computer Methods in Applied Mechanics and Engineering, 2018, 340, 90-120.	6.6	17
11	Stabilization arising from PGEM: A review and further developments. Applied Numerical Mathematics, 2009, 59, 2065-2081.	2.1	15
12	A residual local projection method for the Oseen equation. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 1906-1921.	6.6	15
13	Primal mixed formulations for the coupling of FEM and BEM. Part I: linear problems. Numerical Functional Analysis and Optimization, 1998, 19, 7-32.	1.4	14
14	An adaptive stabilized finite element method for the generalized Stokes problem. Journal of Computational and Applied Mathematics, 2008, 214, 457-479.	2.0	14
15	A local projection stabilized method for fictitious domains. Applied Mathematics Letters, 2012, 25, 2071-2076.	2.7	13
16	Beyond pressure stabilization: A lowâ€order local projection method for the Oseen equation. International Journal for Numerical Methods in Engineering, 2011, 86, 801-815.	2.8	12
17	Fully computable a posteriori error bounds for stabilised FEM approximations of convectionâ€“reactionâ€“diffusion problems in three dimensions. International Journal for Numerical Methods in Fluids, 2013, 73, 765-790.	1.6	12
18	Blending low-order stabilised finite element methods: A positivity-preserving local projection method for the convectionâ€“diffusion equation. Computer Methods in Applied Mechanics and Engineering, 2017, 317, 1169-1193.	6.6	12

#	Article	IF	Citations
19	A Pressure-Robust Discretization of Oseen's Equation Using Stabilization in the Vorticity Equation. SIAM Journal on Numerical Analysis, 2021, 59, 2746-2774.	2.3	12
20	A stabilized finite-element method for the Stokes problem including element and edge residuals. IMA Journal of Numerical Analysis, 2007, 27, 172-197.	2.9	11
21	Pressure stabilization of finite element approximations of time-dependent incompressible flow problems. Computer Methods in Applied Mechanics and Engineering, 2007, 197, 219-231.	6.6	11
22	Analysis of a group finite element formulation. Applied Numerical Mathematics, 2017, 118, 238-248.	2.1	11
23	On the coupling of boundary integral and finite element methods with nonlinear transmission conditions. Applicable Analysis, 1996, 62, 181-210.	1.3	10
24	On the Adaptive Selection of the Parameter in Stabilized Finite Element Approximations. SIAM Journal on Numerical Analysis, 2013, 51, 1585-1609.	2.3	10
25	A stabilised finite element method for the convectionâ€“diffusionâ€“reaction equation in mixed form. Computer Methods in Applied Mechanics and Engineering, 2018, 339, 389-415.	6.6	10
26	The multiscale hybrid mixed method in general polygonal meshes. Numerische Mathematik, 2020, 145, 197-237.	1.9	10
27	Fully Computable Error Estimation of a Nonlinear, Positivity-Preserving Discretization of the Convection-Diffusion-Reaction Equation. SIAM Journal of Scientific Computing, 2017, 39, A1903-A1927.	2.8	9
28	A Symmetric Nodal Conservative Finite Element Method for the Darcy Equation. SIAM Journal on Numerical Analysis, 2009, 47, 3652-3677.	2.3	8
29	Time-dependent semidiscrete analysis of the viscoelastic fluid flow problem using a variational multiscale stabilized formulation. IMA Journal of Numerical Analysis, 2019, 39, 792-819.	2.9	8
30	Weak solvability of interior transmission problems via mixed finite elements and Dirichlet-to-Neumann mappings. Journal of Computational and Applied Mathematics, 1998, 100, 145-160.	2.0	7
31	Hybrid Discontinuous Galerkin Discretisation and Domain Decomposition Preconditioners for the Stokes Problem. Computational Methods in Applied Mathematics, 2019, 19, 703-722.	0.8	6
32	Stabilization of High Aspect Ratio Mixed Finite Elements for Incompressible Flow. SIAM Journal on Numerical Analysis, 2015, 53, 1107-1120.	2.3	5
33	Adaptive reduced basis method for the reconstruction of unsteady vortex-dominated flows. Computers and Fluids, 2019, 190, 382-397.	2.5	5
34	Well-posedness and H(div)-conforming finite element approximation of a linearised model for inviscid incompressible flow. Mathematical Models and Methods in Applied Sciences, 2020, 30, 847-865.	3.3	5
35	A Divergence-Free Stabilized Finite Element Method for the Evolutionary Navier–Stokes Equations. SIAM Journal of Scientific Computing, 2021, 43, A3809-A3836.	2.8	5
36	Stabilised finite element methods for the Oseen problem on anisotropic quadrilateral meshes. ESAIM: Mathematical Modelling and Numerical Analysis, 2018, 52, 99-122.	1.9	4

#	Article	IF	Citations
37	The inf-sup stability of the lowest order Taylorâ€“Hood pair on affine anisotropic meshes. IMA Journal of Numerical Analysis, 2020, 40, 2377-2398.	2.9	4
38	A stabilized finite element method for a fictitious domain problem allowing small inclusions. Numerical Methods for Partial Differential Equations, 2018, 34, 167-183.	3.6	2
39	Impact of POD modes energy redistribution on flow reconstruction for unsteady flows of impulsively started airfoils and wings. International Journal of Computational Fluid Dynamics, 2020, 34, 108-118.	1.2	2
40	Stabilised finite element methods for a bending moment formulation of the Reissner-Mindlin plate model. Calcolo, 2015, 52, 343-369.	1.1	1