Philippe Angot

List of Publications by Year
in descending order

43 papers	1,766 citations	430874 18 h-index	302126 39 g-index
46 all docs	46 docs citations	46 times ranked	1066 citing authors

#	Article	IF	Citations
1	A penalization method to take into account obstacles in incompressible viscous flows. Numerische Mathematik, 1999, 81, 497-520.	1.9	650
2	Fictitious domain approach for numerical modelling of Navier-Stokes equations. International Journal for Numerical Methods in Fluids, 2000, 34, 651-684.	1.6	224
3	Asymptotic and numerical modelling of flows in fractured porous media. ESAIM: Mathematical Modelling and Numerical Analysis, 2009, 43, 239-275.	1.9	148
4	A fictitious domain approach with spread interface for elliptic problems with general boundary conditions. Computer Methods in Applied Mechanics and Engineering, 2007, 196, 766-781.	6.6	116
5	Analysis of singular perturbations on the Brinkman problem for fictitious domain models of viscous flows. Mathematical Methods in the Applied Sciences, 1999, 22, 1395-1412.	2.3	84
6	A volume penalization method for incompressible flows and scalar advectionâ€“diffusion with moving obstacles. Journal of Computational Physics, 2012, 231, 4365-4383.	3.8	79
7	A general fictitious domain method with immersed jumps and multilevel nested structured meshes. Journal of Computational Physics, 2007, 225, 1347-1387.	3.8	55
8	A finite element penaltyâ€“projection method for incompressible flows. Journal of Computational Physics, 2006, 217, 502-518.	3.8	45
9	Analysis of a combined barycentric finite volumeâ€”nonconforming finite element method for nonlinear convection-diffusion problems. Applications of Mathematics, 1998, 43, 263-310.	0.9	36
10	Asymptotic modeling of transport phenomena at the interface between a fluid and a porous layer: Jump conditions. Physical Review E, 2017, 95, 063302.	2.1	31
11	A unified fictitious domain model for general embedded boundary conditions. Comptes Rendus Mathematique, 2005, 341, 683-688.	0.3	26
12	On the well-posed coupling between free fluid and porous viscous flows. Applied Mathematics Letters, 2011, 24, 803-810.	2.7	25
13	A model of fracture for elliptic problems with flux and solution jumps. Comptes Rendus Mathematique, 2003, 337, 425-430.	0.3	22
14	A fast vector penalty-projection method for incompressible non-homogeneous or multiphase Navierâ€“Stokes problems. Applied Mathematics Letters, 2012, 25, 1681-1688.	2.7	22
15	NESTED GRID METHODS FOR AN OCEAN MODEL: A COMPARATIVE STUDY. International Journal for Numerical Methods in Fluids, 1996, 23, 1163-1195.	1.6	20
16	A fictitious domain model for the Stokes/Brinkman problem with jump embedded boundary conditions. Comptes Rendus Mathematique, 2010, 348, 697-702.	0.3	19
17	On the penalty-projection method for the Navierâ€“Stokes equations with the MAC mesh. Journal of Computational and Applied Mathematics, 2009, 226, 228-245.	2.0	18
18	Fast discrete Helmholtzâ€“Hodge decompositions in bounded domains. Applied Mathematics Letters, 2013, 26, 445-451.	2.7	18

#	Article	IF	Citations
19	Well-posed Stokes/Brinkman and Stokes/Darcy coupling revisited with new jump interface conditions. ESAIM: Mathematical Modelling and Numerical Analysis, 2018, 52, 1875-1911.	1.9	17
20	Fictitious Domain Methods to Solve Convection-Diffusion Problems with General Boundary Conditions. , 2005, , .		12
21	A new fast method to compute saddle-points in constrained optimization and applications. Applied Mathematics Letters, 2012, 25, 245-251.	2.7	12
22	A direction splitting algorithm for incompressible flow in complex geometries. Computer Methods in Applied Mechanics and Engineering, 2012, 217-220, 111-120.	6.6	10
23	Three-dimensional modelling of coastal circulations with different kâ€“Îµ closures. Journal of Marine Systems, 1999, 21, 321-339.	2.1	7
24	Asymptotic study for Stokesâ€“Brinkman model with jump embedded transmission conditions. Asymptotic Analysis, 2016, 96, 223-249.	0.5	7
25	A nonlinear asymptotic model for the inertial flow at a fluid-porous interface. Advances in Water Resources, 2021, 149, 103798.	3.8	7
26	An optimal penalty method for a hyperbolic system modeling the edge plasma transport in a tokamak. Journal of Computational Physics, 2014, 261, 1-22.	3.8	6
27	A kinematic vector penaltyâ€“projection method for incompressible flow with variable density. Comptes Rendus Mathematique, 2016, 354, 1124-1131.	0.3	5
28	On the error estimates of the vector penalty-projection methods: Second-order scheme. Mathematics of Computation, 2017, 87, 2159-2187.	2.1	5
29	Analysis of singular perturbations on the Brinkman problem for fictitious domain models of viscous flows. Mathematical Methods in the Applied Sciences, 1999, 22, 1395-1412.	2.3	5
30	Une mÃ©thode de pÃ©nalitÃ©-projection pour les Ã©coulements dilatables. European Journal of Computational Mechanics, 2008, 17, 453-480.	0.6	5
31	A practical and portable model of programming for iterative solvers on distributed memory machines. Parallel Computing, 1996, 22, 487-512.	2.1	4
32	Convergence results for the vector penalty-projection and two-step artificial compressibility methods. Discrete and Continuous Dynamical Systems - Series B, 2012, 17, 1383-1405.	0.9	4
33	A multilevel local mesh refinement projection method for low Mach number flows. Mathematics and Computers in Simulation, 2003, 61, 477-488.	4.4	3
34	A Spectacular Vector Penalty-Projection Method for Darcy and Navier-Stokes Problems. Springer Proceedings in Mathematics, 2011, , 39-47.	0.5	3
35	Numerical solution of Navier-Stokes systems. Numerical Linear Algebra With Applications, 1999, 6, 17-27.	1.6	2
36	Well-Posed Stokesâˆ•Brinkman and Stokesâˆ•Darcy Problems for Coupled Fluid-Porous Viscous Flows. , 2010, , .		2

#	Article	IF	Citations
37	Fictitious domain approach for numerical modelling of Navierâ€“Stokes equations. , 2000, 34, 651.		2
38	FINITE VOLUME METHODS FOR NON SMOOTH SOLUTION OF DIFFUSION MODELS;: APPLICATION TO IMPERFECT CONTACT PROBLEMS. , 1999, , .		2
39	Vector Penalty-Projection Methods for Open Boundary Conditions with Optimal Second-Order Accuracy. Communications in Computational Physics, 2019, 26, 1008-1038.	1.7	2
40	Momentum transport in the free fluid-porous medium transition layer: one-domain approach. Chemical Engineering Science, 2022, 248, 117111.	3.8	1
41	Analysis of singular perturbations on the Brinkman problem for fictitious domain models of viscous flows. , 1999, 22, 1395.		1
42	The Algebraic Immersed Interface and Boundary Method for Elliptic Equations with Jump Conditions. Open Journal of Fluid Dynamics, 2020, 10, 239-269.	0.5	1
43	The Fictitious Domain Method with Sharp Interface for Elasticity Systems with General Jump Embedded Boundary Conditions. Advances in Applied Mathematics and Mechanics, 2021, 13, 119-139.	1.2	0