Pascal Omnes

List of Publications by Year
in descending order

30 papers	809 citations	1040056 9 h-index	552781 26 g-index
30 all docs	30 docs citations	30 times ranked	415 citing authors

#	Article	IF	Citations
1	Divergence Correction Techniques for Maxwell Solvers Based on a Hyperbolic Model. Journal of Computational Physics, 2000, 161, 484-511.	3.8	283
2	A finite volume method for the Laplace equation on almost arbitrary two-dimensional grids. ESAIM: Mathematical Modelling and Numerical Analysis, 2005, 39, 1203-1249.	1.9	166
3	A three-dimensional finite-volume solver for the Maxwell equations with divergence cleaning on unstructured meshes. Computer Physics Communications, 2000, 130, 83-117.	7.5	81
4	A finite volume method for the approximation of Maxwellâ€™s equations in two space dimensions on arbitrary meshes. Journal of Computational Physics, 2008, 227, 9365-9388.	3.8	66
5	The influence of cell geometry on the Godunov scheme applied to the linear wave equation. Journal of Computational Physics, 2010, 229, 5315-5338.	3.8	44
6	Construction of modified Godunov-type schemes accurate at any Mach number for the compressible Euler system. Mathematical Models and Methods in Applied Sciences, 2016, 26, 2525-2615.	3.3	42
7	A Discrete Duality Finite Volume Approach to Hodge Decomposition and divâ€curl Problems on Almost Arbitrary Twoâ€Dimensional Meshes. SIAM Journal on Numerical Analysis, 2007, 45, 1142-1174.	2.3	34
8	Numerical and physical comparisons of two models of a gas centrifuge. Computers and Fluids, 2007, 36, 1028-1039.	2.5	15
9	A discrete duality finite volume discretization of the vorticityâ€velocityâ€pressure stokes problem on almost arbitrary twoâ€dimensional grids. Numerical Methods for Partial Differential Equations, 2015, 31, 1-30.	3.6	14
10	Full discretization of time dependent convectionâ€“diffusionâ€“reaction equation coupled with the Darcy system. Calcolo, 2020, 57, 1.	1.1	8
11	On the second-order convergence of a function reconstructed from finite volume approximations of the Laplace equation on Delaunay-Voronoi meshes. ESAIM: Mathematical Modelling and Numerical Analysis, 2011, 45, 627-650.	1.9	7
12	Analysis of modified Godunov type schemes for the two-dimensional linear wave equation with Coriolis source term on cartesian meshes. Journal of Computational Physics, 2018, 373, 91-129.	3.8	6
13	A Posteriori Error Estimation for the Discrete Duality Finite Volume Discretization of the Laplace Equation. SIAM Journal on Numerical Analysis, 2009, 47, 2782-2807.	2.3	5
14	Ana posteriorierror estimation for the discrete duality finite volume discretization of the Stokes equations. ESAIM: Mathematical Modelling and Numerical Analysis, 2015, 49, 663-693.	1.9	4
15	Optimal Absorption of Acoustic Waves by a Boundary. SIAM Journal on Control and Optimization, 2021, 59, 561-583.	2.1	4
16	Spaceâ€“Time Domain Decomposition with Finite Volumes for Porous Media Applications. Lecture Notes in Computational Science and Engineering, 2014, , 567-575.	0.3	4
17	Benchmark Proposal for the FVCA8 Conference: Finite Volume Methods for the Stokes and Navierâ€“Stokes Equations. Springer Proceedings in Mathematics and Statistics, 2017, , 59-71.	0.2	4
18	Preliminary results for the study of the godunov scheme applied to the linear wave equation with porosity at low mach number. ESAIM Proceedings and Surveys, 2015, 52, 105-126.	0.4	3

#	Article	IF	Citations
19	Godunov type scheme for the linear wave equation with Coriolis source term. ESAIM Proceedings and Surveys, 2017, 58, 1-26.	0.4	3
20	Construction of a low Mach finite volume scheme for the isentropic Euler system with porosity. ESAIM: Mathematical Modelling and Numerical Analysis, 2021, 55, 1199-1237.	1.9	3
21	Optimized Schwarz Waveform Relaxation for Porous Media Applications. Lecture Notes in Computational Science and Engineering, 2013, , 585-592.	0.3	3
22	Enriched Nonconforming Multiscale Finite Element Method for Stokes Flows in Heterogeneous Media Based on High-order Weighting Functions. Multiscale Modeling and Simulation, 2022, 20, 462-492.	1.6	3
23	Coupling Parareal with Optimized Schwarz Waveform Relaxation for Parabolic Problems. SIAM Journal on Numerical Analysis, 2022, 60, 913-939.	2.3	3
24	A posteriori error estimates for the time-dependent convection-diffusion-reaction equation coupled with the Darcy system. Numerical Algorithms, 2022, 89, 1247-1286.	1.9	1
25	On the Godunov Scheme Applied to the Variable Cross-Section Linear Wave Equation. Springer Proceedings in Mathematics, 2011, , 313-321.	0.5	1
26	Analysis of Apparent Topography Scheme forÂthe Linear Wave Equation with Coriolis Force. Springer Proceedings in Mathematics and Statistics, 2017, , 209-217.	0.2	1
27	A posteriori error estimates for the large eddy simulation applied to stationary Navierâ€“Stokes equations. Numerical Methods for Partial Differential Equations, 0, , .	3.6	1
28	Self-consistent Numerical Simulation of Isotope Separation by Selective Ion Cyclotron Resonance Heating in a Magnetically Confined Plasma. Journal of Computational Physics, 2001, 172, 326-347.	3.8	0
29	Dielectric conductivity of a bounded plasma and its rate of convergence towards its infinite-geometry value. Journal of Plasma Physics, 2003, 69, 449-463.	2.1	0
30	Numerical Results for a Discrete Duality Finite Volume Discretization Applied to the Navierâ€“Stokes Equations. Springer Proceedings in Mathematics and Statistics, 2017, , 141-161.	0.2	0