Joanna Szmelter

List of Publications by Year
in descending order

		567281	552781
30 papers	**700** citations	**15** h-index	**26** g-index
33 all docs	**33** docs citations	**33** times ranked	**357** citing authors

#	Article	IF	Citations
1	Simulations of stably stratified flow past two spheres at Re≈300. Physics of Fluids, 2021, 33, 046602.	4.0	0
2	Stratified flow past a sphere at moderate Reynolds numbers. Computers and Fluids, 2021, 226, 104998.	2.5	9
3	A Multidimensional Positive Definite Remapping Algorithm for Unstructured Meshes. Computers and Fluids, 2020, 200, 104454.	2.5	2
4	FVM 1.0: a nonhydrostatic finite-volume dynamical core for the IFS. Geoscientific Model Development, 2019, 12, 651-676.	3.6	47
5	Non-oscillatory forward-in-time integrators for viscous incompressible flows past a sphere. Journal of Computational Physics, 2019, 386, 365-383.	3.8	8
6	The ESCAPE project: Energy-efficient Scalable Algorithms for Weather Prediction at Exascale. Geoscientific Model Development, 2019, 12, 4425-4441.	3.6	19
7	A Class of Finite-Volume Models for Atmospheric Flows Across Scales. , 2018, , .		0
8	Simulation of all-scale atmospheric dynamics on unstructured meshes. Journal of Computational Physics, 2016, 322, 267-287.	3.8	19
9	A finite-volume module for simulating global all-scale atmospheric flows. Journal of Computational Physics, 2016, 314, 287-304.	3.8	34
10	An unstructured-mesh atmospheric model for nonhydrostatic dynamics: Towards optimal mesh resolution. Journal of Computational Physics, 2015, 294, 363-381.	3.8	14
11	Simulations of orographic flows using unstructured and structured meshes (Invited). , 2015, , .		0
12	An unstructured-mesh atmospheric model for nonhydrostatic dynamics. Journal of Computational Physics, 2013, 254, 184-199.	3.8	26
13	A nonhydrostatic unstructured-mesh soundproof model for simulation of internal gravity waves. Acta Geophysica, 2011, 59, 1109-1134.	2.0	46
14	A multidimensional positive definite remapping algorithm for arbitrary Lagrangian–Eulerian methods. International Journal for Numerical Methods in Fluids, 2011, 65, 1338-1350.	1.6	4
15	A multidimensional positive definite remapping for Lagrangian solutions of the Noh problem. Computers and Fluids, 2011, 46, 257-262.	2.5	1
16	An edge-based unstructured mesh framework for atmospheric flows. Computers and Fluids, 2011, 46, 455-460.	2.5	16
17	An edge-based unstructured mesh discretisation in geospherical framework. Journal of Computational Physics, 2010, 229, 4980-4995.	3.8	47
18	Iterated upwind schemes for gas dynamics. Journal of Computational Physics, 2009, 228, 33-54.	3.8	48

#	Article	IF	Citations
19	An MPDATA‑based solver for compressible flows. International Journal for Numerical Methods in Fluids, 2008, 56, 1529-1534.	1.6	13
20	Burning surfaces evolution in solid propellants: A numerical model. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2007, 221, 429-439.	1.3	10
21	Hydrodynamics and transport in estuaries and rivers by the CBS finite element method. International Journal for Numerical Methods in Engineering, 2006, 66, 1569-1586.	2.8	14
22	MPDATA error estimator for mesh adaptivity. International Journal for Numerical Methods in Fluids, 2006, 50, 1269-1293.	1.6	25
23	MPDATA: An edge-based unstructured-grid formulation. Journal of Computational Physics, 2005, 206, 624-649.	3.8	83
24	Multidimensional positive definite advection transport algorithm (MPDATA): an edge-based unstructured-data formulation. International Journal for Numerical Methods in Fluids, 2005, 47, 1293-1299.	1.6	15
25	Multipoint Aerodynamic Wing Optimization in Viscous Flow. Journal of Aircraft, 2001, 38, 860-867.	2.4	7
26	Two-dimensional Navier-Stokes equations with adaptivity on structured meshes. Computer Methods in Applied Mechanics and Engineering, 1992, 101, 355-368.	6.6	8
27	A point enrichment strategy for polygonal finite volume meshes. Applied Mathematical Modelling, 1992, 16, 562-575.	4.2	0
28	Adaptivity for compressible flow computations using point embedding on 2-D structured multiblock meshes. International Journal for Numerical Methods in Engineering, 1991, 32, 895-919.	2.8	20
29	Error estimation and adaptivity in Navier-Stokes incompressible flows. Computational Mechanics, 1990, 6, 259-270.	4.0	102
30	Compressible and incompressible flow; An algorithm for all seasons. Computer Methods in Applied Mechanics and Engineering, 1990, 78, 105-121.	6.6	62