Kai Schneider

List of Publications by Year
in descending order

181 papers	3,779 citations	147801 31 h-index	161849 54 g-index
195 all docs	195 docs citations	195 times ranked	1866 citing authors

#	Article	IF	Citations
1	Wavelet adaptive proper orthogonal decomposition for large-scale flow data. Advances in Computational Mathematics, 2022, 48, 1.	1.6	4
2	Clustering of inertial particles in turbulent flow through a porous unit cell. Journal of Fluid Mechanics, 2022, 937, .	3.4	4
3	A Characteristic Mapping method for the two-dimensional incompressible Euler equations. Journal of Computational Physics, 2021, 424, 109781.	3.8	5
4	Local Multiwavelet-Based Adaptation within a Discontinuous Galerkin Framework. , 2021, , .		0
5	The Dynamics of Bumblebee Wing Pitching Rotation: Measurement and Modelling. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2021, , 125-133.	0.3	0
6	Adaptive two- and three-dimensional multiresolution computations of resistive magnetohydrodynamics. Advances in Computational Mathematics, 2021, 47, 1.	1.6	0
7	Scale-dependent statistics of inertial particle distribution in high Reynolds number turbulence. Physical Review Fluids, 2021, 6, .	2.5	9
8	A Wavelet-Adaptive Method for Multiscale Simulation of Turbulent Flows in Flying Insects. Communications in Computational Physics, 2021, 30, 1118-1149.	1.7	13
9	Lagrangian and Eulerian accelerations in turbulent stratified shear flows. Physical Review Fluids, 2021, 6, .	2.5	0
10	An experimental data-driven mass-spring model of ï¬,exible <i>Calliphora</i> wings. Bioinspiration and Biomimetics, 2021, , .	2.9	2
11	Effect of shaping on turbulent dynamics in reversed-field pinch simulations. Journal of Plasma Physics, 2021, 87, .	2.1	0
12	A mass-spring fluid-structure interaction solver: Application to flexible revolving wings. Computers and Fluids, 2020, 200, 104426.	2.5	8
13	Divergence and convergence of inertial particles in high-Reynolds-number turbulence. Journal of Fluid Mechanics, 2020, 905, .	3.4	12
14	Multiresolution analysis as a criterion for effective dynamic mesh adaptation â€" A case study for Euler equations in the SAMR framework AMROC. Computers and Fluids, 2020, 205, 104583.	2.5	13
15	Efficiency of laminar and turbulent mixing in wall-bounded flows. Physical Review E, 2020, 101, 043104.	2.1	2
16	Influence of wing flexibility on the aerodynamic performance of a tethered flapping bumblebee. Theoretical and Applied Mechanics Letters, 2020, 10, 382-389.	2.8	3
17	Wing Morphology and Inertial Properties of Bumblebees. Journal of Aero Aqua Bio-mechanisms, 2019, 8, 41-47.	1.0	4
18	Kinetic Turbulence in Astrophysical Plasmas: Waves and/or Structures?. Physical Review X, 2019, 9, .	8.9	26

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19	Wavelet-based parallel dynamic mesh adaptation for magnetohydrodynamics in the AMROC framework. Computers and Fluids, 2019, 190, 374-381.	2.5	7
20	The dynamics of passive feathering rotation in hovering flight of bumblebees. Journal of Fluids and Structures, 2019, 91, 102628.	3.4	31
21	Volume penalization for inhomogeneous Neumann boundary conditions modeling scalar flux in complicated geometry. Journal of Computational Physics, 2019, 390, 452-469.	3.8	13
22	Local time-stepping for adaptive multiresolution using natural extension of Runge–Kutta methods. Journal of Computational Physics, 2019, 382, 291-318.	3.8	5
23	Impact of turbulence on flying insects in tethered and free flight: High-resolution numerical experiments. Physical Review Fluids, 2019, 4, .	2.5	14
24	Helical vortices generated by flapping wings of bumblebees. Fluid Dynamics Research, 2018, 50, 011419.	1.3	9
25	Energy dissipation caused by boundary layer instability at vanishing viscosity – ERRATUM. Journal of Fluid Mechanics, 2018, 857, 952-952.	3.4	0
26	Wavelet methods for studying the onset of strong plasma turbulence. Physics of Plasmas, 2018, 25, .	1.9	7
27	Numerical Simulation of Wall-Bounded Flows using a Spectral Method with Volume Penalization. ESAIM Proceedings and Surveys, 2018, 63, 280-289.	0.4	0
28	Energy dissipation caused by boundary layer instability at vanishing viscosity. Journal of Fluid Mechanics, 2018, 849, 676-717.	3.4	9
29	Angular multiscale statistics of turbulence in a porous bed. Physical Review Fluids, 2018, 3, .	2.5	15
30	On the verification of adaptive three-dimensional multiresolution computations of the magneto hydrodynamic equations. Journal of Applied Nonlinear Dynamics, 2018, 7, 231-242.	0.3	1
31	An adaptive multiresolution scheme with second order local time-stepping for reaction-diffusion equations. Journal of Applied Nonlinear Dynamics, 2018, 7, 287-295.	0.3	0
32	Coherent structure extraction in turbulent channel flow using boundary adapted wavelets. Journal of Turbulence, 2017, 18, 352-372.	1.4	11
33	Numerical simulation of vortex-induced drag of elastic swimmer models. Theoretical and Applied Mechanics Letters, 2017, 7, 280-285.	2.8	9
34	Wavelet-based regularization of the Galerkin truncated three-dimensional incompressible Euler flows. Physical Review E, 2017, 96, 063119.	2.1	4
35	Extraction of coherent clusters and grid adaptation in particle-laden turbulence using wavelet filters. Physical Review Fluids, 2017, 2, .	2.5	12
36	Directional change of fluid particles in two-dimensional turbulence and of football players. Physical Review Fluids, 2017, 2, .	2.5	5

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37	Der Hummelflug in Turbulenz. Physik in Unserer Zeit, 2016, 47, 111-112.	0.0	0
38	Adaptive wavelet simulation of weakly compressible flow in a channel with a suddenly expanded section. ESAIM Proceedings and Surveys, 2016, 53, 38-48.	0.4	2
39	Comparison of a spectral method with volume penalization and a finite volume method with body fitted grids for turbulent flows. Computers and Fluids, 2016, 133, 140-150.	2.5	7
40	Comparison of Adaptive Multiresolution and Adaptive Mesh Refinement Applied to Simulations of the Compressible Euler Equations. SIAM Journal of Scientific Computing, 2016, 38, S173-S193.	2.8	21
41	Structure of sheared and rotating turbulence: Multiscale statistics of Lagrangian and Eulerian accelerations and passive scalar dynamics. Physical Review E, 2016, 93, 013113.	2.1	4
42	FluSI: A Novel Parallel Simulation Tool for Flapping Insect Flight Using a Fourier Method with Volume Penalization. SIAM Journal of Scientific Computing, 2016, 38, S3-S24.	2.8	35
43	Bumblebees minimize control challenges by combining active and passive modes in unsteady winds. Scientific Reports, 2016, 6, 35043.	3.3	46
44	Coherent Structures in the Boundary and Cloud Layers: Role of Updrafts, Subsiding Shells, and Environmental Subsidence. Journals of the Atmospheric Sciences, 2016, 73, 1789-1814.	1.7	30
45	Adaptive Gradient-Augmented Level Set Method with Multiresolution Error Estimation. Journal of Scientific Computing, 2016, 66, 116-140.	2.3	5
46	Aerodynamic Ground Effect in Fruitfly Sized Insect Takeoff. PLoS ONE, 2016, 11, e0152072.	2.5	33
47	Immersed boundary methods for numerical simulation of confined fluid and plasma turbulence in complex geometries: a review. Journal of Plasma Physics, 2015, 81, .	2.1	20
48	Wavelet transforms and their applications to MHD and plasma turbulence: a review. Journal of Plasma Physics, 2015, 81, .	2.1	33
49	An adaptive multiresolution method for ideal magnetohydrodynamics using divergence cleaning with parabolicâ€"hyperbolic correction. Applied Numerical Mathematics, 2015, 95, 199-213.	2.1	7
50	Angular Statistics of Lagrangian Trajectories in Turbulence. Physical Review Letters, 2015, 114, 214502.	7.8	13
51	Magnetohydrodynamically generated velocities in confined plasma. Physics of Plasmas, 2015, 22, .	1.9	3
52	Adaptive Multiresolution Computations Applied to Detonations. Zeitschrift Fur Physikalische Chemie, 2015, 229, 931-953.	2.8	4
53	Simulation of forced deformable bodies interacting with two-dimensional incompressible flows: Application to fish-like swimming. International Journal of Heat and Fluid Flow, 2015, 51, 88-109.	2.4	11
54	Analysis and discretization of the volume penalized Laplace operator with Neumann boundary conditions. Applied Numerical Mathematics, 2015, 95, 238-249.	2.1	16

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55	Numerical simulation of fluid–structure interaction with the volume penalization method. Journal of Computational Physics, 2015, 281, 96-115.	3.8	42
56	Self-organization of helically forced MHD flow in confined cylindrical geometries. Fluid Dynamics Research, 2014, 46, 061422.	1.3	2
57	Numerical simulation of flows past flat plates using volume penalization. Computational and Applied Mathematics, 2014, 33, 481-495.	1.3	10
58	The effect of toroidicity on reversed field pinch dynamics. Plasma Physics and Controlled Fusion, 2014, 56, 095024.	2.1	7
59	Approximation of the Laplace and Stokes operators with Dirichlet boundary conditions through volume penalization: a spectral viewpoint. Numerische Mathematik, 2014, 128, 301-338.	1.9	23
60	Small-scale anisotropic intermittency in magnetohydrodynamic turbulence at low magnetic Reynolds numbers. Physical Review E, 2014, 89, 033013.	2.1	3
61	Leading-edge vortex shedding from rotating wings. Fluid Dynamics Research, 2014, 46, 031421.	1.3	9
62	Simulation of confined magnetohydrodynamic flows with Dirichlet boundary conditions using a pseudo-spectral method with volume penalization. Journal of Computational Physics, 2014, 274, 64-94.	3.8	20
63	Two-dimensional simulation of the fluttering instability using a pseudospectral method with volume penalization. Computers and Structures, 2013, 122, 101-112.	4.4	15
64	Is the CFL Condition Sufficient? Some Remarks. , 2013, , 139-146.		2
65	FOREWORD: Turbulence Colloquium Marseille 2011. Journal of Turbulence, 2013, 14, 39-42.	1.4	0
66	Numerical Modelling of Flexible Heaving Foils. Journal of Aero Aqua Bio-mechanisms, 2013, 3, 22-28.	1.0	10
67	Space-Time Adaptive Multiresolution Techniques for Compressible Euler Equations. , 2013, , 101-117.		0
68	Numerical Simulations of the Clap-Fling-Sweep Mechanism of Hovering Insects. Advances in Science and Technology, 2012, 84, 57-58.	0.2	0
69	Intrinsic Rotation of Toroidally Confined Magnetohydrodynamics. Physical Review Letters, 2012, 109, 175002.	7.8	13
70	Conditional vorticity budget of coherent and incoherent flow contributions in fully developed homogeneous isotropic turbulence. Physics of Fluids, 2012, 24, 035108.	4.0	7
71	On helical multiscale characterization of homogeneous turbulence. Journal of Turbulence, 2012, 13, N35.	1.4	3
72	Scale-wise coherent vorticity extraction for conditional statistical modeling of homogeneous isotropic two-dimensional turbulence. Physica D: Nonlinear Phenomena, 2012, 241, 186-201.	2.8	12

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73	A volume penalization method for incompressible flows and scalar advection–diffusion with moving obstacles. Journal of Computational Physics, 2012, 231, 4365-4383.	3.8	79
74	Coherent Vorticity Simulation of Three-Dimensional Forced Homogeneous Isotropic Turbulence. Multiscale Modeling and Simulation, 2011, 9, 1144-1161.	1.6	11
75	Coexistence of two dissipative mechanisms in two-dimensional turbulent flows. Journal of Physics: Conference Series, 2011, 318, 042057.	0.4	0
76	Intermittency of quasi-static magnetohydrodynamic turbulence: A wavelet viewpoint. Journal of Physics: Conference Series, 2011, 318, 072035.	0.4	1
77	Helical Properties of Sheared and Rotating Turbulence. Journal of Physics: Conference Series, 2011, 318, 082025.	0.4	0
78	Influence of waves on Lagrangian acceleration in two-dimensional turbulent flows. ESAIM: Proceedings and Surveys, 2011, 32, 231-241.	0.4	0
79	Adaptive multiresolution methods. ESAIM: Proceedings and Surveys, 2011, 34, 1-96.	0.4	19
80	Directional and scale-dependent statistics of quasi-static magnetohydrodynamic turbulence. ESAIM: Proceedings and Surveys, 2011, 32, 95-102.	0.4	3
81	The Lighthill–Weis-Fogh clap–fling–sweep mechanism revisited. Journal of Fluid Mechanics, 2011, 676, 572-606.	3.4	27
82	Energy Dissipating Structures Produced by Walls in Two-Dimensional Flows at Vanishing Viscosity. Physical Review Letters, 2011, 106, 184502.	7.8	18
83	A pseudo-spectral method with volume penalisation for magnetohydrodynamic turbulence in confined domains. Computer Physics Communications, 2011, 182, 2-7.	7.5	14
84	Coherent vorticity extraction in resistive drift-wave turbulence: Comparison of orthogonal wavelets versus proper orthogonal decomposition. Comptes Rendus Physique, 2011, 12, 123-131.	0.9	10
85	Two- and three-dimensional numerical simulations of the clap–fling–sweep of hovering insects. Journal of Fluids and Structures, 2011, 27, 784-791.	3.4	35
86	Influence of initial mean helicity on homogeneous turbulent shear flow. Physical Review E, 2011, 84, 056319.	2.1	4
87	Coherent vorticity extraction in turbulent boundary layers using orthogonal wavelets. Journal of Physics: Conference Series, 2011, 318, 022011.	0.4	4
88	Intermittency and geometrical statistics of three-dimensional homogeneous magnetohydrodynamic turbulence: A wavelet viewpoint. Physics of Plasmas, 2011, 18, .	1.9	12
89	Particle-in-wavelets scheme for the 1D Vlasov-Poisson equations. ESAIM: Proceedings and Surveys, 2011, 32, 134-148.	0.4	6
90	Vorticity generation during the clap–fling–sweep of some hovering insects. Theoretical and Computational Fluid Dynamics, 2010, 24, 209-215.	2.2	14

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91	Numerical simulations of falling leaves using a pseudo-spectral method with volume penalization. Theoretical and Computational Fluid Dynamics, 2010, 24, 169-173.	2.2	10
92	Coherent Vortex Simulation of weakly compressible turbulent mixing layers using adaptive multiresolution methods. Journal of Computational Physics, 2010, 229, 2267-2286.	3.8	20
93	Wavelet-based density estimation for noise reduction in plasma simulations using particles. Journal of Computational Physics, 2010, 229, 2821-2839.	3.8	17
94	Adaptive Multiresolution Methods for the Simulation ofÂWaves in Excitable Media. Journal of Scientific Computing, 2010, 43, 261-290.	2.3	24
95	Lagrangian dynamics of drift-wave turbulence. Physica D: Nonlinear Phenomena, 2010, 239, 1269-1277.	2.8	13
96	Craya decomposition using compactly supported biorthogonal wavelets. Applied and Computational Harmonic Analysis, 2010, 28, 267-284.	2.2	8
97	Origin of Lagrangian Intermittency in Drift-Wave Turbulence. Physical Review Letters, 2010, 105, 145001.	7.8	11
98	On the structure and dynamics of sheared and rotating turbulence: Anisotropy properties and geometrical scale-dependent statistics. Physics of Fluids, 2010, 22, .	4.0	14
99	Self-organization and symmetry-breaking in two-dimensional plasma turbulence. Physics of Plasmas, 2010, 17, 092302.	1.9	7
100	Wavelet Methods in Computational Fluid Dynamics. Annual Review of Fluid Mechanics, 2010, 42, 473-503.	25.0	222
101	On the Role of Coherent Structures in a Lid Driven Cavity Flow. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2010, , 207-214.	0.3	0
102	Adaptive multiresolution or adaptive mesh refinement? A case study for 2D Euler equations. ESAIM: Proceedings and Surveys, 2009, 29, 28-42.	0.4	12
103	Intermittency and scale-dependent statistics in fully developed turbulence. Physical Review E, 2009, 79, 026303.	2.1	25
104	Wavelet-based coherent vorticity sheet and current sheet extraction from three-dimensional homogeneous magnetohydrodynamic turbulence. Physics of Plasmas, 2009, 16, 082306.	1.9	18
105	An adaptive multiresolution method for parabolic PDEs with timeâ€step control. International Journal for Numerical Methods in Engineering, 2009, 78, 652-670.	2.8	14
106	Adaptive multiresolution schemes with local time stepping for two-dimensional degenerate reactionâ€"diffusion systems. Applied Numerical Mathematics, 2009, 59, 1668-1692.	2.1	24
107	Spaceâ€"time adaptive multiresolution methods for hyperbolic conservation laws: Applications to compressible Euler equations. Applied Numerical Mathematics, 2009, 59, 2303-2321.	2.1	52
108	A Fourier spectral method for the Navierâ€"Stokes equations with volume penalization for moving solid obstacles. Journal of Computational Physics, 2009, 228, 5687-5709.	3.8	109

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109	Investigation of steady-state tokamak issues by long pulse experiments on Tore Supra. Nuclear Fusion, 2009, 49, 104010.	3.5	23
110	Reduced-Order Modelling of Turbulent Jets for Noise Control. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2009, , 3-27.	0.3	14
111	Numerical Simulation of Turbulent Flows in Complex Geometries Using the Coherent Vortex Simulation Approach Based on Orthonormal Wavelet Decomposition. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2009, , 175-200.	0.3	1
112	Coherent vorticity extraction in 3D homogeneous isotropic turbulence: influence of the Reynolds number and geometrical statistics. Brazilian Journal of Physics, 2009, 39, 531-538.	1.4	2
113	Coherent enstrophy production and dissipation in 2D turbulence with and without walls. Springer Proceedings in Physics, 2009, , 909-909.	0.2	0
114	Wavelets meet Burgulence: CVS-filtered Burgers equation. Physica D: Nonlinear Phenomena, 2008, 237, 2151-2157.	2.8	11
115	Fully adaptive multiresolution schemes for strongly degenerate parabolic equations with discontinuous flux. Journal of Engineering Mathematics, 2008, 60, 365-385.	1.2	14
116	Adaptive multiresolution schemes for reaction-diffusion systems. Proceedings in Applied Mathematics and Mechanics, 2008, 8, 10969-10970.	0.2	0
117	An adaptive multiresolution scheme with local time stepping for evolutionary PDEs. Journal of Computational Physics, 2008, 227, 3758-3780.	3.8	80
118	Final states of decaying 2D turbulence in bounded domains: Influence of the geometry. Physica D: Nonlinear Phenomena, 2008, 237, 2228-2233.	2.8	21
119	On the structure and dynamics of sheared and rotating turbulence: Direct numerical simulation and wavelet-based coherent vortex extraction. Physics of Fluids, 2008, 20, .	4.0	25
120	The decay of magnetohydrodynamic turbulence in a confined domain. Physics of Plasmas, 2008, 15, 092304.	1.9	11
121	Rapid Generation of Angular Momentum in Bounded Magnetized Plasma. Physical Review Letters, 2008, 101, 235003.	7.8	18
122	Extreme Lagrangian Acceleration in Confined Turbulent Flow. Physical Review Letters, 2008, 100, 184503.	7.8	20
123	Fully adaptive multiresolution schemes for strongly degenerate parabolic equations in one space dimension. ESAIM: Mathematical Modelling and Numerical Analysis, 2008, 42, 535-563.	1.9	21
124	Decaying 2D Turbulence in Bounded Domains: Influence of the Geometry. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2008, , 249-253.	0.2	0
125	Wavelet-Based Extraction of Coherent Vortices from High Reynolds Number Homogeneous Isotropic Turbulence. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2008, , 243-248.	0.2	1
126	Coherent vortices in high resolution direct numerical simulation of homogeneous isotropic turbulence: A wavelet viewpoint. Physics of Fluids, 2007, 19, .	4.0	68

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127	Small-scale intermittency in anisotropic turbulence. Physical Review E, 2007, 76, 046310.	2.1	28
128	Wavelet denoising for postprocessing of a 2D Particle-In-Cell code. ESAIM: Proceedings and Surveys, 2007, 16, 195-210.	0.4	8
129	On space–time adaptive schemes for the numerical solution of PDEs. ESAIM: Proceedings and Surveys, 2007, 16, 181-194.	0.4	10
130	Divergence-free Wavelets for Coherent Vortex Extraction in 3D homogeneous isotropic turbulence. ESAIM: Proceedings and Surveys, 2007, 16, 146-163.	0.4	11
131	Coherent vortex extraction in 3D homogeneous isotropic turbulence using orthogonal wavelets. ESAIM: Proceedings and Surveys, 2007, 16, 164-180.	0.4	2
132	Multiresolution schemes for an extended clarifier–thickener model. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 1041803-1041804.	0.2	0
133	Fourier spectral and wavelet solvers for the incompressible Navier–Stokes equations with volume-penalization: Convergence of a dipole–wall collision. Journal of Computational Physics, 2007, 227, 919-945.	3.8	58
134	Review of Some Fundamentals of Data Processing. , 2007, , 1337-1398.		16
135	On Decaying Two-Dimensional Turbulence in a Circular Container. , 2007, , 91-97.		1
136	Contribution of Coherent and Incoherent Vorticity Fields to High Reynolds Number Homogeneous Isotropic Turbulence : a Wavelet Viewpoint. , 2007, , 535-536.		0
137	Final states of decaying 2D turbulence in di3erent geometries with no-slip walls. , 2007, , 147-149.		0
138	Coherent vortex extraction and simulation of 2D isotropic turbulence. Journal of Turbulence, 2006, 7, N44.	1.4	23
139	Numerical study of thermodiffusive flame structures interacting with adiabatic walls using an adaptive multiresolution scheme. Combustion Theory and Modelling, 2006, 10, 273-288.	1.9	12
140	Foreword for the special issue on 'Large Eddy Simulation, Coherent Vortex Simulation & Vortex Methods' dedicated to the memory of Joel Ferziger. Journal of Turbulence, 2006, 7, N42.	1.4	0
141	Adaptive numerical simulation of pulsating planar flames for large Lewis and Zeldovich ranges. Communications in Nonlinear Science and Numerical Simulation, 2006, 11, 463-480.	3.3	4
142	Extraction of coherent bursts from turbulent edge plasma in magnetic fusion devices using orthogonal wavelets. Physics of Plasmas, 2006, 13, 042304.	1.9	32
143	Numerical simulation of the transient flow behaviour in tube bundles using a volume penalization method. Journal of Fluids and Structures, 2005, 20, 555-566.	3.4	43
144	Nonlinear wavelet thresholding: A recursive method to determine the optimal denoising threshold. Applied and Computational Harmonic Analysis, 2005, 18, 177-185.	2.2	99

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145	Numerical simulation of the transient flow behaviour in chemical reactors using a penalisation method. Computers and Fluids, 2005, 34, 1223-1238.	2.5	79
146	A penalization method applied to the wave equation. Comptes Rendus - Mecanique, 2005, 333, 79-85.	2.1	15
147	An adaptive multiresolution method for combustion problems: application to flame ball–vortex interaction. Computers and Fluids, 2005, 34, 817-831.	2.5	34
148	Numerical investigations on premixed spherical flames for Lewis numbers larger than unity. Microgravity Science and Technology, 2005, 17, 94-100.	1.4	2
149	Decaying Two-Dimensional Turbulence in a Circular Container. Physical Review Letters, 2005, 95, 244502.	7.8	52
150	Coherent vortex simulation of three-dimensional turbulent mixing layers using orthogonal wavelets. Journal of Fluid Mechanics, 2005, 534, 39-66.	3.4	57
151	SPATIAL INTERMITTENCY IN TWO-DIMENSIONAL TURBULENCE: A WAVELET APPROACH. Series on Knots and Everything, 2004, , 302-328.	0.0	18
152	Rotating shallow water flow past an obstacle. , 2004, , 137-142.		2
153	Numerical study of mixing of passive and reactive scalars in two-dimensional turbulent flows using orthogonal wavelet filtering. Chemical Engineering Science, 2003, 58, 1463-1477.	3.8	14
154	Numerical simulations on the stability of spherical flame structures. Combustion and Flame, 2003, 132, 247-271.	5.2	16
155	A conservative fully adaptive multiresolution algorithm for parabolic PDEs. Journal of Computational Physics, 2003, 188, 493-523.	3.8	116
156	Wavelet filtering to study mixing in 2D isotropic turbulence. Communications in Nonlinear Science and Numerical Simulation, 2003, 8, 537-545.	3.3	15
157	Coherent vortex extraction in three-dimensional homogeneous turbulence: Comparison between CVS-wavelet and POD-Fourier decompositions. Physics of Fluids, 2003, 15, 2886.	4.0	96
158	Geometrical alignment properties in Fourier- and wavelet-filtered statistically stationary two-dimensional turbulence. Physical Review E, 2002, 66, 046307.	2.1	2
159	Adaptive Wavelet Simulation of a Flow around an Impulsively Started Cylinder Using Penalisation. Applied and Computational Harmonic Analysis, 2002, 12, 374-380.	2.2	41
160	Vortex tubes in shear-stratified turbulent flows. , 2002, , 217-228.		1
161	Extraction of coherent vortex tubes in a 3D turbulent mixing layer using orthogonal wavelets. , 2002, , 211-216.		0
162	Computing and Analyzing Turbulent Flows Using Wavelets. , 2001, , 181-216.		4

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163	Wavelet filtering of three-dimensional turbulence. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2001, 81, 465-466.	1.6	2
164	Coherent Vortex Simulation (CVS) of two-dimensional turbulence. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2001, 81, 485-486.	1.6	0
165	Coherent Vortex Simulation (CVS), A Semi-Deterministic Turbulence Model Using Wavelets. Flow, Turbulence and Combustion, 2001, 66, 393-426.	2.6	122
166	Coherent Vortex Extraction in 3D Turbulent Flows Using Orthogonal Wavelets. Physical Review Letters, 2001, 87, 054501.	7.8	196
167	Numerical simulation of the mixing of passive and reactive scalars in two-dimensional flows dominated by coherent vortices. Chemical Engineering Science, 2000, 55, 4255-4269.	3.8	13
168	Numerical simulation of three-dimensional instabilities of spherical flame structures. Proceedings of the Combustion Institute, 2000, 28, 793-799.	3.9	17
169	Numerical simulation of a mixing layer in an adaptive wavelet basis. Comptes Rendus De L'Academie De Sciences - Serie IIb: Mecanique, Physique, Chimie, Astronomie, 2000, 328, 263-269.	0.1	9
170	Computation of decaying turbulence in an adaptive wavelet basis. Physica D: Nonlinear Phenomena, 1999, 134, 337-361.	2.8	18
171	28. Direkte numerische Simulation des Mischverhaltens in zweidimensionalen turbulenten Strömungen. Chemie-Ingenieur-Technik, 1999, 71, 950-951.	0.8	0
172	Simulation and Analysis of Mixing in Two-Dimensional Turbulent Flows Using Fourier and Wavelet Techniques. , 1999, , 344-351.		1
173	Non-Gaussianity and coherent vortex simulation for two-dimensional turbulence using an adaptive orthogonal wavelet basis. Physics of Fluids, 1999, 11, 2187-2201.	4.0	301
174	An adaptive two-dimensional wavelet-vaguelette algorithm for the computation of flame balls. Combustion Theory and Modelling, 1999, 3, 177-198.	1.9	34
175	Coherent Structure Eduction in Wavelet-Forced Two-Dimensional Turbulent Flows. Fluid Mechanics and Its Applications, 1998, , 65-83.	0.2	7
176	Comparison of an Adaptive Wavelet Method and Nonlinearly Filtered Pseudospectral Methods for Two-Dimensional Turbulence. Theoretical and Computational Fluid Dynamics, 1997, 9, 191-206.	2.2	56
177	Wavelet forcing for numerical simulation of two-dimensional turbulence. Comptes Rendus De L'Académie Des Sciences - Series IIB - Mechanics-Physics-Chemistry-Astronomy, 1997, 325, 263-270.	0.1	6
178	An Adaptive Wavelet–Vaguelette Algorithm for the Solution of PDEs. Journal of Computational Physics, 1997, 130, 174-190.	3.8	91
179	Wavelet Smoothing of Evolutionary Spectra by Nonlinear Thresholding. Applied and Computational Harmonic Analysis, 1996, 3, 268-282.	2.2	34
180	Numerical Simulation of Decaying Turbulence in an Adaptive Wavelet Basis. Applied and Computational Harmonic Analysis, 1996, 3, 393-397.	2.2	34

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181	Video: Bumblebee flight in turbulence: high resolution numerical simulations. , 0, , .		0