Mikael Mortensen

List of Publications by Year
in descending order

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35 papers	715 citations	686830 13 h-index	580395 25 g-index
36 all docs	36 docs citations	36 times ranked	707 citing authors

#	Article	IF	Citations
1	Direct numerical simulation of transitional flow in a patient-specific intracranial aneurysm. Journal of Biomechanics, 2011, 44, 2826-2832.	0.9	107
2	Oasis: A high-level/high-performance open source Navierâ€“Stokes solver. Computer Physics Communications, 2015, 188, 177-188.	3.0	71
3	Derivation of the conditional moment closure equations for spray combustion. Combustion and Flame, 2009, 156, 62-72.	2.8	66
4	Fast parallel multidimensional FFT using advanced MPI. Journal of Parallel and Distributed Computing, 2019, 128, 137-150.	2.7	37
5	High performance Python for direct numerical simulations of turbulent flows. Computer Physics Communications, 2016, 203, 53-65.	3.0	36
6	Consistent modeling of scalar mixing for presumed, multiple parameter probability density functions. Physics of Fluids, 2005, 17, 018106.	1.6	31
7	A FEniCS-based programming framework for modeling turbulent flow by the Reynolds-averaged Navierâ€“Stokes equations. Advances in Water Resources, 2011, 34, 1082-1101.	1.7	29
8	The FDA nozzle benchmark: â€œIn theory there is no difference between theory and practice, but in practice there isâ€• International Journal for Numerical Methods in Biomedical Engineering, 2019, 35, e3150.	1.0	29
9	Preconditioners for Saddle Point Systems with Trace Constraints Coupling 2D and 1D Domains. SIAM Journal of Scientific Computing, 2016, 38, B962-B987.	1.3	24
10	Conditional mixing statistics in a self-similar scalar mixing layer. Physics of Fluids, 2005, 17, 095107.	1.6	20
11	A numerical investigation of intrathecal isobaric drug dispersion within the cervical subarachnoid space. PLoS ONE, 2017, 12, e0173680.	1.1	19
12	Wake potential of a dust particle in magnetised plasmas. Physica Scripta, 2017, 92, 114006.	1.2	15
13	Gasâ€“liquid slug flow in a horizontal concentric annulus, a comparison of numerical simulations and experimental data. International Journal of Heat and Fluid Flow, 2019, 78, 108437.	1.1	14
14	Mixing of a Jet in a Pipe. Chemical Engineering Research and Design, 2004, 82, 357-363.	2.7	13
15	Presumed Mapping Functions for Eulerian Modelling of Turbulent Mixing. Flow, Turbulence and Combustion, 2006, 76, 199-219.	1.4	12
16	Direct numerical simulations of the double scalar mixing layer. Part I: Passive scalar mixing and dissipation. Physics of Fluids, 2006, 18, 067106.	1.6	12
17	Preconditioning trace coupled 3dâ€“1d systems using fractional Laplacian. Numerical Methods for Partial Differential Equations, 2019, 35, 375-393.	2.0	12
18	On the singular Neumann problem in linear elasticity. Numerical Linear Algebra With Applications, 2019, 26, e2212.	0.9	12

#	Article	IF	Citations
19	Numerical simulations of a sounding rocket in ionospheric plasma: Effects of magnetic field on the wake formation and rocket potential. Journal of Geophysical Research: Space Physics, 2017, 122, 9603-9621.	0.8	11
20	Direct numerical simulations of the double scalar mixing layerPart II: Reactive scalars. Combustion and Flame, 2007, 149, 392-408.	2.8	10
21	Shenfun: High performance spectral Galerkin computing platform. Journal of Open Source Software, 2018, 3, 1071.	2.0	10
22	Implementation of a conditional moment closure for mixing sensitive reactions. Chemical Engineering Science, 2004, 59, 5709-5723.	1.9	9
23	Impact of Miniaturized Fixed-Bias Multineedle Langmuir Probes on CubeSats. IEEE Transactions on Plasma Science, 2019, 47, 3658-3666.	0.6	7
24	Two-phase flow simulations at <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si10.svg"><mml:mrow><mml:mn>0</mml:mn><mml:mo linebreak="goodbreak">â^’</mml:mo><mml:msup><mml:mn>4</mml:mn><mml:mi>o</mml:mi></mml:msup></mml:mrow></mml:mat inclination in an eccentric annulus. International Journal of Heat and Fluid Flow, 2020, 83, 108586.	1.1	7
25	Conditional velocity statistics in the double scalar mixing layer â€“ A mapping closure approach. Combustion Theory and Modelling, 2008, 12, 929-941.	1.0	5
26	Towards Sensitizing the Nonlinear v 2â€‰â^’â€‰f Model to Turbulence Structures. Flow, Turbulence and Combustion, 2009, 83, 185-203.	1.4	4
27	More efficient time integration for Fourier pseudospectral DNS of incompressible turbulence. International Journal for Numerical Methods in Fluids, 2020, 92, 79-93.	0.9	4
28	Slope limiting the velocity field in a discontinuous Galerkin divergence-free two-phase flow solver. Computers and Fluids, 2020, 196, 104322.	1.3	4
29	â€œDerivation of the conditional moment closure equations for spray combustionâ€•[Combust. Flame Vol. 155, Issue 3]. Combustion and Flame, 2008, 155, 369.	2.8	3
30	mpi4py-fft: Parallel Fast Fourier Transforms with MPI for Python. Journal of Open Source Software, 2019, 4, 1340.	2.0	3
31	Assessment of the presumed mapping function approach for the stationary laminar flamelet modelling of reacting double scalar mixing layers. Combustion Theory and Modelling, 2014, 18, 552-581.	1.0	2
32	A Nonlinear Eddy-Viscosity Model forÂNear-Wall Turbulence. ERCOFTAC Series, 2011, , 269-276.	0.1	1
33	Assessment of the finite volume method applied to thev2â^’fmodel. International Journal for Numerical Methods in Fluids, 2009, 63, n/a-n/a.	0.9	0
34	Direct Numerical Simulation of Transitional Flow in a Patient-Specific MCA Aneurysm. , 2011, , .		0
35	A Novel Method for Circuits of Perfect Electric Conductors in Unstructured Particle-in-Cell Plasmaâ€“Object Interaction Simulations. IEEE Transactions on Plasma Science, 2020, 48, 2856-2872.	0.6	0