Michael J Bluck

List of Publications by Year
in descending order

45 papers	659 citations	623574 14 h-index	552653 26 g-index
46 all docs	46 docs citations	46 times ranked	490 citing authors

#	Article	IF	Citations
1	Non-intrusive semi-analytical uncertainty quantification using Bayesian quadrature with application to CFD simulations. International Journal of Heat and Fluid Flow, 2022, 93, 108917.	1.1	1
2	Fixed inducing points online Bayesian calibration for computer models with an application to a scale-resolving CFD simulation. Journal of Computational Physics, 2021, 434, 110243.	1.9	3
3	Quantification of the uncertainty within a SAS-SST simulation caused by the unknown high-wavenumber damping factor. Nuclear Engineering and Design, 2021, 381, 111307.	0.8	2
4	Modelling Microlayer Formation in Boiling Sodium. Fluids, 2020, 5, 213.	0.8	5
5	Isogeometric analysis of the time-dependent incompressible MHD equations. International Journal of Computational Fluid Dynamics, 2020, 34, 226-248.	0.5	1
6	A hybrid reduced order method for modelling turbulent heat transfer problems. Computers and Fluids, 2020, 208, 104615.	1.3	27
7	Isogeometric Analysis of the Steady-State Incompressible MHD Equations. SIAM Journal of Scientific Computing, 2019, 41, B396-B424.	1.3	1
8	Analytical Solutions to Nonuniform Surface Heat Transfer With Volumetric Sources in Magnetohydrodynamic Duct Flow. Journal of Heat Transfer, 2019, 141, .	1.2	1
9	Using a Gaussian process regression inspired method to measure agreement between the experiment and CFD simulations. International Journal of Heat and Fluid Flow, 2019, 80, 108497.	1.1	20
10	An assessment of eddy viscosity models on predicting performance parameters of valves. Nuclear Engineering and Design, 2019, 342, 60-77.	0.8	17
11	Assessments of Different Turbulence Models in Predicting the Performance of a Butterfly Valve. , 2018, , .		1
12	A Validation of CFD Methods on Predicting Valve Performance Parameters. , 2018, , .		1
13	An analytical solution to the heat transfer problem in thick-walled hunt flow. International Journal of Heat and Fluid Flow, 2017, 64, 103-111.	1.1	5
14	An analytical solution to electromagnetically coupled duct flow in MHD. Journal of Fluid Mechanics, 2015, 771, 595-623.	1.4	27
15	An analytical solution to the heat transfer problem in Shercliff flow. International Journal of Heat and Mass Transfer, 2015, 86, 542-549.	2.5	3
16	A coupled systems code-CFD MHD solver for fusion blanket design. Fusion Engineering and Design, 2015, 98-99, 1902-1906.	1.0	8
17	A Multilevel Hierarchical Preconditioning Method for Multiscale scattering bodies. , 2014, , .		0
18	A Multilevel Hierarchical Preconditioner for Multiscale EM scattering. , 2014, , .		0

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19	CFD Analysis of the Flow in Crud-Coated Nuclear Rod Bundles. , 2014, , .		0
20	CFD simulation of turbulent flow in a rod bundle with spacer grids (MATIS-H) using STAR-CCM+. Nuclear Engineering and Design, 2014, 279, 37-49.	0.8	37
21	A p-MUS Preconditioner for the EFIE. IEEE Transactions on Antennas and Propagation, 2013, 61, 5547-5552.	3.1	0
22	A multilevel hierarchical preconditioner technique for multiscale and complex EM scattering bodies. , 2013, , .		0
23	Application of time-domain BIE to sub-wavelength scattering bodies with finite conductivity. , 2012, , .		0
24	Conforming Hierarchical Basis Functions. Communications in Computational Physics, 2012, 12, 1215-1256.	0.7	6
25	A multilevel hierarchical preconditioner for the electric field integral equation. , 2011, , .		1
26	Time-domain bie analysis of large electromagnetic scattering problems with Impedance Boundary Condition. , 2011, , .		0
27	Adsorption kinetics, capacity and mechanism of arsenate and phosphate on a bifunctional TiO2â€"Fe2O3 bi-composite. Journal of Colloid and Interface Science, 2011, 364, 205-212.	5.0	111
28	Modelling heat transfer and dissolved species concentrations within PWR crud. Nuclear Engineering and Design, 2011, 241, 155-162.	0.8	33
29	The effective thermal conductivity of crud and heat transfer from crud-coated PWR fuel. Nuclear Engineering and Design, 2011, 241, 792-798.	0.8	24
30	Integral equation transient analysis of experiments on electromagnetic scattering from sub-wavelength apertures. , 2009, , .		0
31	Polynomial basis functions on pyramidal elements. Communications in Numerical Methods in Engineering, 2008, 24, 1827-1837.	1.3	8
32	Transient Near Field Analysis of Optical Modes in Sub-wavelength Arrays. , 2007, , .		1
33	High-Order Discrete Helmholtz Decompositions for the Electric Field Integral Equation. IEEE Transactions on Antennas and Propagation, 2007, 55, 1338-1347.	3.1	4
34	Integral Equation Time Domain Analysis of Frequency-dependent Transmission through Aperture Arrays. , 2007, , .		0
35	Applications of Differential Forms to Boundary Integral Equations. IEEE Transactions on Antennas and Propagation, 2006, 54, 1781-1796.	3.1	5
36	Modelling of sub-wavelength optical apertures in thin metal sheets via 3D transient Maxwell's equations. , 2005, , .		0

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37	The stability of integral equation time-domain scattering computations for three-dimensional scattering; similarities and differences between electrodynamic and elastodynamic computations. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2002, 15, 459-474.	1.2	31
38	The extension of time-domain integral equation analysis to scattering from imperfectly conducting bodies. IEEE Transactions on Antennas and Propagation, 2001, 49, 875-879.	3.1	7
39	Parallelisation issues for high speed time domain integral equation analysis. Parallel Computing, 1999, 25, 925-942.	1.3	4
40	Extending integral equation time domain acoustic scattering analysis to larger problems. International Journal for Numerical Methods in Engineering, 1999, 46, 1997-2010.	1.5	2
41	Electromagnetic scattering from 3-D curved dielectric bodies using time-domain integral equations. IEEE Transactions on Antennas and Propagation, 1998, 46, 1212-1219.	3.1	34
42	Costs and cost scaling in time-domain integral-equation analysis of electromagnetic scattering. IEEE Antennas and Propagation Magazine, 1998, 40, 12-21.	1.2	45
43	Time-domain BIE analysis of large three-dimensional electromagnetic scattering problems. IEEE Transactions on Antennas and Propagation, 1997, 45, 894-901.	3.1	107
44	An accurate method for the calculation of singular integrals arising in time-domain integral equation analysis of electromagnetic scattering. IEEE Transactions on Antennas and Propagation, 1997, 45, 1793-1798.	3.1	26
45	ANALYSIS OF THREE-DIMENSIONAL TRANSIENT ACOUSTIC WAVE PROPAGATION USING THE BOUNDARY INTEGRAL EQUATION METHOD. International Journal for Numerical Methods in Engineering, 1996, 39, 1419-1431.	1.5	50