Arnaud Malan

List of Publications by Year
in descending order

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Version: 2024-02-01

48 papers	790 citations	516710 16 h-index	526287 27 g-index
48 all docs	48 docs citations	48 times ranked	540 citing authors

#	Article	IF	Citations
1	Effect of Pulsatility on the Transport of Thrombin in an Idealized Cerebral Aneurysm Geometry. Symmetry, 2022, 14, 133.	2.2	3
2	Sloshing Wing Dynamics - 2nd Year Project Overview. , 2022, , .		1
3	A higher-order accurate VOF interface curvature computation scheme for 3D non-orthogonal structured meshes. Computers and Fluids, 2022, 245, 105595.	2.5	2
4	A geometric VOF method for interface resolved phase change and conservative thermal energy advection. Journal of Computational Physics, 2021, 426, 109920.	3.8	31
5	Stable Dynamical Adaptive Mesh Refinement. Journal of Scientific Computing, 2021, 86, 1.	2.3	1
6	An All-Mach Number HLLC-Based Scheme for Multi-Phase Flow with Surface Tension. Applied Sciences (Switzerland), 2021, 11, 3413.	2.5	7
7	CFD Based Non-Dimensional Characterization of Energy Dissipation Due to Verticle Slosh. Applied Sciences (Switzerland), 2021, 11, 10401.	2.5	16
8	Efficient and error minimized coupling procedures for unstructured and moving meshes. Journal of Computational Physics, 2020, 406, 109158.	3.8	4
9	A higher-order accurate surface tension modelling volume-of-fluid scheme for 2D curvilinear meshes. Journal of Computational Physics, 2020, 420, 109717.	3.8	6
10	Aeroelastic Reduced Order Model: Kriging-Corrected Potential Flow. Journal of Aircraft, 2020, 57, 501-516.	2.4	3
11	Second law analysis of a fossilâ€geothermal hybrid power plant with thermodynamic optimization of geothermal preheater. Heat Transfer, 2020, 49, 3997-4018.	3.0	1
12	Investigating design parameters of a perforated metal gas diffusion layer in a polymer electrolyte membrane fuel cell. Journal of Power Sources, 2019, 413, 198-208.	7.8	10
13	Hybrid Computational-Fluid-Dynamics Platformto Investigate Aircraft Trailing Vortices. Journal of Aircraft, 2019, 56, 344-355.	2.4	6
14	The initialisation of volume fractions for unstructured grids using implicit surface definitions.. Computers and Fluids, 2019, 179, 194-205.	2.5	9
15	A hybrid framework for coupling arbitrary summation-by-parts schemes on general meshes. Journal of Computational Physics, 2018, 362, 49-68.	3.8	22
16	A novel finite volume discretization method for advectionâ€“diffusion systems on stretched meshes. Journal of Computational Physics, 2018, 362, 220-242.	3.8	2
17	Novel Nonlinear Fuel Slosh Surrogate Reduced-Order Model for Aircraft Loads Prediction. Journal of Aircraft, 2018, 55, 1004-1013.	2.4	9
18	A Kriging Based Corrected Potential Flow ROM for Gust Load Calculations. , 2018, , .		0

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19	An AMG strategy for efficient solution of free-surface flows. International Journal of Numerical Methods for Heat and Fluid Flow, 2016, 26, 1172-1186.	2.8	2
20	Numerical and experimental study of the effects of the electrical resistance and diffusivity under clamping pressure on the performance of a metallic gas-diffusion layer in polymer electrolyte fuel cells. Journal of Power Sources, 2016, 330, 273-284.	7.8	25
21	A computationally efficient 3D finiteâ€volume scheme for violent liquidâ€“gas sloshing. International Journal for Numerical Methods in Fluids, 2015, 79, 306-321.	1.6	22
22	A matrix free, partitioned solution of fluidâ€“structure interaction problems using finite volume and finite element methods. European Journal of Mechanics, B/Fluids, 2015, 49, 272-286.	2.5	5
23	Hybrid Finite-Volume Reduced-Order Model Method for Nonlinear Aeroelastic Modeling. Journal of Aircraft, 2014, 51, 1805-1812.	2.4	5
24	An enhanced finite volume method to model 2D linear elastic structures. Applied Mathematical Modelling, 2014, 38, 2265-2279.	4.2	21
25	Development of a compressive surface capturing formulation for modelling freeâ€surface flow by using the volumeâ€ofâ€fluid approach. International Journal for Numerical Methods in Fluids, 2013, 71, 788-804.	1.6	47
26	An accelerated, fully-coupled, parallel 3D hybrid finite-volume fluidâ€“structure interaction scheme. Computer Methods in Applied Mechanics and Engineering, 2013, 253, 426-438.	6.6	25
27	A weakly compressible free-surface flow solver for liquidâ€“gas systems using the volume-of-fluid approach. Journal of Computational Physics, 2013, 240, 145-157.	3.8	14
28	An interactive boundary layer modelling methodology for aerodynamic flows. International Journal of Numerical Methods for Heat and Fluid Flow, 2013, 23, 1373-1392.	2.8	1
29	A matrix-free, implicit, incompressible fractional-step algorithm for fluidâ€“structure interaction applications. Journal of Computational Physics, 2012, 231, 5389-5405.	3.8	18
30	Free-Surface Modelling Technology for Compressible and Violent Flows. , 2011, , .		0
31	Highly efficient optimization mesh movement method based on proper orthogonal decomposition. International Journal for Numerical Methods in Engineering, 2011, 86, 935-952.	2.8	7
32	An artificial compressibility CBS method for modelling heat transfer and fluid flow in heterogeneous porous materials. International Journal for Numerical Methods in Engineering, 2011, 87, 412-423.	2.8	30
33	An artificial compressibility algorithm for modelling natural convection in saturated packed pebble beds: A heterogeneous approach. International Journal for Numerical Methods in Engineering, 2008, 75, 1214-1237.	2.8	12
34	A flow network formulation for compressible and incompressible flow. International Journal of Numerical Methods for Heat and Fluid Flow, 2008, 18, 185-201.	2.8	6
35	An artificial compressibility method for buoyancyâ€driven flow in heterogeneous saturated packed beds. International Journal of Numerical Methods for Heat and Fluid Flow, 2008, 18, 900-918.	2.8	6
36	Thermal characterisation of rectangular cooling shapes in solids. International Journal of Numerical Methods for Heat and Fluid Flow, 2007, 17, 361-383.	2.8	10

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37	A cut-cell non-conforming Cartesian mesh method for compressible and incompressible flow. International Journal for Numerical Methods in Engineering, 2007, 72, 1332-1354.	2.8	16
38	Modelling non-linear heat conduction via a fast matrix-free implicit unstructured-hybrid algorithm. Computer Methods in Applied Mechanics and Engineering, 2007, 196, 4495-4504.	6.6	10
39	Constructal Conjugate Heat Transfer in Three-Dimensional Cooling Channels. Journal of Enhanced Heat Transfer, 2007, 14, 279-293.	1.1	7
40	Continuum thermodynamic modeling of drying capillary particulate materials via an edge-based algorithm. Computer Methods in Applied Mechanics and Engineering, 2005, 194, 2043-2057.	6.6	23
41	Embedded Solid State Heat Extraction in Integrated Power Electronic Modules. IEEE Transactions on Power Electronics, 2005, 20, 694-703.	7.9	24
42	An edge-based finite volume scheme for saturatedâ€“unsaturated groundwater flow. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 4741-4759.	6.6	21
43	On the development of high-performance C++ object-oriented code with application to an explicit edge-based fluid dynamics scheme. Computers and Fluids, 2004, 33, 1291-1304.	2.5	4
44	Modelling coupled heat and mass transfer in drying non-hygroscopic capillary particulate materials. Communications in Numerical Methods in Engineering, 2003, 19, 669-677.	1.3	21
45	Continuum thermodynamic modeling of drying capillary particulate materials using an unstructured finite volume algorithm. , 2003, , 1434-1437.		3
46	An improved unsteady, unstructured, artificial compressibility, finite volume scheme for viscous incompressible flows: Part II. Application. International Journal for Numerical Methods in Engineering, 2002, 54, 715-729.	2.8	52
47	An improved unsteady, unstructured, artificial compressibility, finite volume scheme for viscous incompressible flows: Part I. Theory and implementation. International Journal for Numerical Methods in Engineering, 2002, 54, 695-714.	2.8	104
48	HVAC control strategies to enhance comfort and minimise energy usage. Energy and Buildings, 2001, 33, 853-863.	6.7	116