StÃ©phane Vincent

List of Publications by Year
in descending order

55 papers	1,215 citations	361413 20 h-index	377865 34 g-index
56 all docs	56 docs citations	56 times ranked	801 citing authors

#	Article	IF	Citations
1	Three-dimensional Large Eddy Simulation of air entrainment under plunging breaking waves. Coastal Engineering, 2006, 53, 631-655.	4.0	185
2	An adaptative augmented Lagrangian method for three-dimensional multimaterial flows. Computers and Fluids, 2004, 33, 1273-1289.	2.5	73
3	Efficient solving method for unsteady incompressible interfacial flow problems. International Journal for Numerical Methods in Fluids, 1999, 30, 795-811.	1.6	69
4	A One-Cell Local Multigrid Method for Solving Unsteady Incompressible Multiphase Flows. Journal of Computational Physics, 2000, 163, 172-215.	3.8	64
5	Numerical investigations in Rayleigh breakup of round liquid jets with VOF methods. Computers and Fluids, 2011, 50, 10-23.	2.5	62
6	A Lagrangian VOF tensorial penalty method for the DNS of resolved particle-laden flows. Journal of Computational Physics, 2014, 256, 582-614.	3.8	57
7	Macroscopic analysis of gas-jet wiping: Numerical simulation and experimental approach. Physics of Fluids, 2006, 18, 042103.	4.0	53
8	Augmented Lagrangian and penalty methods for the simulation of two-phase flows interacting with moving solids. Application to hydroplaning flows interacting with real tire tread patterns. Journal of Computational Physics, 2011, 230, 956-983.	3.8	50
9	A multiphase compressible model for the simulation of multiphase flows. Computers and Fluids, 2011, 50, 24-34.	2.5	36
10	An Eulerian/Lagrangian method for the numerical simulation of incompressible convection flows interacting with complex obstacles: Application to the natural convection in the Lascaux cave. International Journal of Heat and Mass Transfer, 2009, 52, 2528-2542.	4.8	35
11	Parametric study of LES subgrid terms in a turbulent phase separation flow. International Journal of Heat and Fluid Flow, 2010, 31, 536-544.	2.4	35
12	Large eddy simulation of turbulent interfacial flows using Approximate Deconvolution Model. International Journal of Multiphase Flow, 2019, 112, 286-299.	3.4	33
13	Numerical simulations of wave breaking. ESAIM: Mathematical Modelling and Numerical Analysis, 2005, 39, 591-607.	1.9	31
14	Impact and solidification of indium droplets on a cold substrate. International Journal of Thermal Sciences, 2005, 44, 219-233.	4.9	30
15	Local penalty methods for flows interacting with moving solids at high Reynolds numbers. Computers and Fluids, 2007, 36, 902-913.	2.5	30
16	Contribution to the modeling of the interaction between a plasma flow and a liquid jet. Surface and Coatings Technology, 2009, 203, 2162-2171.	4.8	28
17	Eulerian–Lagrangian multiscale methods for solving scalar equations – Application to incompressible two-phase flows. Journal of Computational Physics, 2010, 229, 73-106.	3.8	26
18	Fully three-dimensional direct numerical simulation of a plunging breaker. Comptes Rendus - Mecanique, 2003, 331, 495-501.	2.1	24

#	Article	IF	Citations
19	Modeling the first instant of the interaction between a liquid and a plasma jet with a compressible approach. Surface and Coatings Technology, 2010, 205, 974-979.	4.8	23
20	Numerical simulation of several impacting ceramic droplets with liquid/solid phase change. Surface and Coatings Technology, 2015, 268, 272-277.	4.8	21
21	Numerical investigations of liquid jet breakup in pressurized carbon dioxide: Conditions of two-phase flow in Supercritical Antisolvent Process. Journal of Supercritical Fluids, 2012, 63, 16-24.	3.2	20
22	Multifield hybrid approach for two-phase flow modeling â€" Part 1: Adiabatic flows. Computers and Fluids, 2015, 113, 106-111.	2.5	18
23	Penalty and Eulerianâ€"Lagrangian VOF methods for impact and solidification of metal droplets plasma spray process. Computers and Fluids, 2015, 113, 32-41.	2.5	18
24	CFD calculations of flow pattern maps and LES of multiphase flows. Nuclear Engineering and Design, 2017, 321, 118-131.	1.7	17
25	Analysis of the unsteadiness of a plasma jet and the related turbulence. Surface and Coatings Technology, 2010, 205, 1165-1170.	4.8	16
26	Particle-resolved numerical simulations of the gasâ€"solid heat transfer in arrays of random motionless particles. Acta Mechanica, 2019, 230, 541-567.	2.1	16
27	Detailed comparisons of frontâ€"capturing methods for turbulent twoâ€"phase flow simulations. International Journal for Numerical Methods in Fluids, 2008, 56, 1543-1549.	1.6	15
28	Accurate estimate of drag forces using particle-resolved direct numerical simulations. Acta Mechanica, 2019, 230, 569-595.	2.1	15
29	On primitive formulation in fluid mechanics and fluidâ€"structure interaction with constant piecewise properties in velocityâ€"potentials of acceleration. Acta Mechanica, 2020, 231, 2155-2171.	2.1	15
30	Numerical modeling of gas-jet wiping process. Chemical Engineering and Processing: Process Intensification, 2013, 68, 26-31.	3.6	13
31	On the Navierâ€"Stokes equations simulation of the head-on collision between two surface solitary waves. Comptes Rendus - Mecanique, 2005, 333, 351-357.	2.1	10
32	An original algorithm for VOF based method to handle wetting effect in multiphase flow simulation. Mechanics Research Communications, 2015, 63, 26-32.	1.8	10
33	Macroscopic analysis of a turbulent round liquid jet impinging on an air/water interface in a confined medium. Physics of Fluids, 2009, 21, .	4.0	9
34	Toward a fully resolved volume of fluid simulation of the phase inversion problem. Acta Mechanica, 2021, 232, 2695-2714.	2.1	9
35	A hybrid linking approach for solving the conservation equations with an adaptive mesh refinement method. Journal of Computational and Applied Mathematics, 2006, 191, 280-296.	2.0	5
36	Monolithic Solvers for Incompressible Two-Phase Flows at Large Density and Viscosity Ratios. Fluids, 2021, 6, 23.	1.7	5

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37	A numerical experiment on the interaction between a film and a turbulent jet. Comptes Rendus - Mecanique, 2005, 333, 343-349.	2.1	4
38	A novel implicit method for coastal hydrodynamics modeling: application to the Arcachon lagoon. Comptes Rendus - Mecanique, 2005, 333, 796-803.	2.1	4
39	Comparison of methods computing the distance between two ellipsoids. Journal of Computational Physics, 2022, 458, 111100.	3.8	4
40	A Convergence Study of the One-Fluid Formulation in a Phase Inversion Application at Moderate Reynolds and Weber Numbers. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2021, , 80-90.	0.3	3
41	Gas-Solid Heat Transfer Computation from Particle-Resolved Direct Numerical Simulations. Fluids, 2022, 7, 15.	1.7	3
42	A Mixed Eulerianâ€"Lagrangian scheme for scalar transport. Acta Mechanica, 2020, 231, 3525-3549.	2.1	2
43	A DNS Approach Dedicated to the Analysis of Fluidized Beds. , 2006, , 207-214.		2
44	Simulation of liquid solvent atomization in compressed CO2. Mechanics Research Communications, 2013, 54, 1-6.	1.8	1
45	Numerical Simulation and Modelling of the Forces Acting on Single and Multiple Non-Spherical Particles. , 2014, , .		1
46	Special issue on finite-size particles, drops and bubbles in fluid flows: advances in modelling and simulations. Acta Mechanica, 2019, 230, 381-386.	2.1	1
47	Consistent Velocityâ€"Pressure Coupling for Second-Order L2-Penalty and Direct-Forcing Methods. Fluids, 2020, 5, 92.	1.7	1
48	A Two-Phase LES Compressible Model for Plasma-Liquid Jet Interaction. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2010, , 95-102.	0.3	1
49	Simulation of a Fluidized Bed Using a Hybrid Eulerian-Lagrangian Method for Particle Tracking. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2010, , 103-110.	0.3	1
50	Un exemple d'interaction fluide-fluide: "essorage" par un jet d'air turbulent d'un film liquide entraÃ®nÃ© par une plaque en mouvement. Mecanique Et Industries, 2007, 8, 119-126.	0.2	0
51	An a Priori Study for the Modelling of Subgrid-Scale Phenomena in the Interaction Between a Liquid Sheet and a Decaying Turbulence. , 2008, , .		0
52	Tracking Fronts in One and Two-phase Incompressible Flows Using an Adaptive Mesh Refinement Approach. Journal of Scientific Computing, 2009, 41, 221-237.	2.3	0
53	Multifield Approach and Interface Locating Method for Two-Phase Flows in Nuclear Power Plant. Springer Water, 2016, , 483-500.	0.3	0
54	Spreading Time of Liquid Droplets Impacting on Non-wetting Solid Surfaces. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2021, , 208-215.	0.3	0

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55	LES Modeling with a Multifield Approach. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2018, , 139-147.	0.3	0