Fabien Evrard

List of Publications by Year
in descending order

21 papers	224 citations	1163117 8 h-index	996975 15 g-index
21 all docs	21 docs citations	21 times ranked	182 citing authors

#	Article	IF	Citations
1	Modeling of interfacial mass transfer based on a single-field formulation and an algebraic VOF method considering non-isothermal systems and large volume changes. Chemical Engineering Science, 2022, 247, 116855.	3.8	9
2	Modeling interfacial mass transfer of highly non-ideal mixtures using an algebraic VOF method. Chemical Engineering Science, 2022, 251, 117458.	3.8	3
3	Reducing volume and shape errors in front tracking by divergence-preserving velocity interpolation and parabolic fit vertex positioning. Journal of Computational Physics, 2022, 457, 111072.	3.8	1
4	Breaching the capillary time-step constraint using a coupled VOF method with implicit surface tension. Journal of Computational Physics, 2022, 459, 111128.	3.8	5
5	Characterizing Lagrangian particle dynamics in decaying homogeneous isotropic turbulence using proper orthogonal decomposition. Physics of Fluids, 2022, 34, .	4.0	7
6	Quantifying the errors of the particle-source-in-cell Euler-Lagrange method. International Journal of Multiphase Flow, 2021, 135, 103535.	3.4	7
7	Predicting laserâ€induced cavitation near a solid substrate. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000007.	0.2	4
8	Strong shear flows release gaseous nuclei from surface micro- and nanobubbles. Physical Review Fluids, 2021, 6, .	2.5	2
9	Multiscale modeling and validation of the flow around Taylor bubbles surrounded with small dispersed bubbles using a coupled VOF-DBM approach. International Journal of Multiphase Flow, 2021, 141, 103673.	3.4	17
10	Performance evaluation of standard second-order finite volume method for DNS solution of turbulent channel flow. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2021, 43, 1.	1.6	1
11	Euler-Lagrange modelling of dilute particle-laden flows with arbitrary particle-size to mesh-spacing ratio. Journal of Computational Physics: X, 2020, 8, 100078.	0.7	7
12	Height-function curvature estimation with arbitrary order on non-uniform Cartesian grids. Journal of Computational Physics: X, 2020, 7, 100060.	0.7	1
13	Conservative finite-volume framework and pressure-based algorithm for flows of incompressible, ideal-gas and real-gas fluids at all speeds. Journal of Computational Physics, 2020, 409, 109348.	3.8	39
14	Modeling Acoustic Cavitation Using a Pressure-Based Algorithm for Polytropic Fluids. Fluids, 2020, 5, 69.	1.7	14
15	A multi-scale approach to simulate atomisation processes. International Journal of Multiphase Flow, 2019, 119, 194-216.	3.4	19
16	An immersed boundary method for incompressible flows in complex domains. Journal of Computational Physics, 2019, 378, 770-795.	3.8	22
17	An immersed boundary method for flows with dense particle suspensions. Acta Mechanica, 2019, 230, 485-515.	2.1	9
18	Surface Reconstruction from Discrete Indicator Functions. IEEE Transactions on Visualization and Computer Graphics, 2019, 25, 1629-1635.	4.4	8

#	Article	IF	Citations
19	Artificial viscosity model to mitigate numerical artefacts at fluid interfaces with surface tension. Computers and Fluids, 2017, 143, 59-72.	2.5	26
20	Estimation of curvature from volume fractions using parabolic reconstruction on two-dimensional unstructured meshes. Journal of Computational Physics, 2017, 351, 271-294.	3.8	23
21	Reversal and Inversion of Capillary Jet Breakup at Large Excitation Amplitudes. Flow, Turbulence and Combustion, 0, , 1.	2.6	0