Assensi Oliva

List of Publications by Year in Descending Order

224 papers	4,087 citations	36 h-index	53 g-index
233 ext. papers	4,650 ext. citations	3.1 avg, IF	5.65 L-index

#	Paper	IF	Citations
224	A CFD-based surrogate model for predicting flow parameters in a ventilated room using sensor readings. *Energy and Buildings*, **2022**, 266, 112146	7	0
223	DNS of Mass Transfer in Bi-dispersed Bubble Swarms. *Lecture Notes in Computer Science*, **2022**, 284-296	0.9	
222	On the implementation of flux limiters in algebraic frameworks. *Computer Physics Communications*, **2021**, 108230	4.2	0
221	Tetrahedral adaptive mesh refinement for two-phase flows using conservative level-set method. *International Journal for Numerical Methods in Fluids*, **2021**, 93, 481-503	1.9	3
220	New Strategies for Mitigating the Gray Area in Delayed-Detached Eddy Simulation Models. *AIAA Journal*, **2021**, 59, 3331-3345	2.1	2
219	Energy and exergy analysis of an absorption system with working pairs LiBr-H2O and Carrol-H2O at applications of cooling and heating. *International Journal of Refrigeration*, **2021**, 132, 156-156	3.8	1
218	Numerical simulation of fluid structure interaction in free-surface flows: the WEC case. *Journal of Physics: Conference Series*, **2021**, 2116, 012122	0.3	
217	Electrical conductivity of concentrated LiBr Ethylene-Glycol and water ternary system. *Journal of Physics: Conference Series*, **2021**, 2116, 012069	0.3	
216	Flow topology dynamics in a three-dimensional phase space for turbulent Rayleigh-Bard convection. *Physical Review Fluids*, **2020**, 5,	2.8	3
215	DNS of Drag-Force and Reactive Mass Transfer in Gravity-Driven Bubbly Flows. *ERCOFTAC Series*, **2020**, 119-125	0.1	1
214	Improving DES Capabilities for Predicting Kelvin-Helmholtz Instabilities. Comparison with a Backward-Facing Step DNS. *ERCOFTAC Series*, **2020**, 457-462	0.1	
213	Assessment and Comparison of a Recent Kinematic Sensitive Subgrid Length Scale in Hybrid RANS-LES. *Notes on Numerical Fluid Mechanics and Multidisciplinary Design*, **2020**, 97-107	0.3	1
212	DNS of Unequal Size Droplets Collision Using a Moving-Mesh/Level-Set Method. *ERCOFTAC Series*, **2020**, 103-109	0.1	1
211	On a Proper Tensor-Diffusivity Model for Large-Eddy Simulations of Buoyancy-Driven Flows. *ERCOFTAC Series*, **2020**, 417-423	0.1	1
210	On the feasibility of affordable high-fidelity CFD simulations for indoor environment design and control. *Building and Environment*, **2020**, 184, 107144	6.5	4
209	Direct numerical simulation of backward-facing step flow at and expansion ratio 2. *Journal of Fluid Mechanics*, **2019**, 863, 341-363	3.7	16
208	Numerical study of droplet deformation in shear flow using a conservative level-set method. *Chemical Engineering Science*, **2019**, 207, 153-171	4.4	12

207	A time-average filtering technique to improve the efficiency of two-layer wall models for large eddy simulation in complex geometries. *Computers and Fluids*, **2019**, 188, 44-59	2.8	2
206	Numerical study of rising bubbles with path instability using conservative level-set and adaptive mesh refinement. *Computers and Fluids*, **2019**, 187, 83-97	2.8	10
205	A level-set model for mass transfer in bubbly flows. *International Journal of Heat and Mass Transfer*, **2019**, 138, 335-356	4.9	15
204	Numerical study of binary droplets collision in the main collision regimes. *Chemical Engineering Journal*, **2019**, 370, 477-498	14.7	18
203	A New Subgrid Characteristic Length for LES. *ERCOFTAC Series*, **2019**, 135-141	0.1	
202	DNS of Thermocapillary Migration of Deformable Droplets. *ERCOFTAC Series*, **2019**, 207-213	0.1	1
201	A second-order time accurate semi-implicit method for fluid□tructure interaction problems. *Journal of Fluids and Structures*, **2019**, 86, 135-155	3.1	2
200	DNS of Mass Transfer from Bubbles Rising in a Vertical Channel. *Lecture Notes in Computer Science*, **2019**, 596-610	0.9	3
199	Flow Over a Realistic Car Model: WMLES Assessment and Turbulent Structures. *ERCOFTAC Series*, **2019**, 497-503	0.1	
198	Spectrally-Consistent Regularization of Navier□tokes Equations. *Journal of Scientific Computing*, **2019**, 79, 992-1014	2.3	1
197	A numerical study of liquid atomization regimes by means of conservative level-set simulations. *Computers and Fluids*, **2019**, 179, 137-149	2.8	4
196	Flow over a realistic car model: Wall modeled large eddy simulations assessment and unsteady effects. *Journal of Wind Engineering and Industrial Aerodynamics*, **2018**, 174, 225-240	3.7	26
195	A semi-implicit coupling technique for fluid□tructure interaction problems with strong added-mass effect. *Journal of Fluids and Structures*, **2018**, 80, 94-112	3.1	10
194	Building Proper Invariants for Large-Eddy Simulation. *ERCOFTAC Series*, **2018**, 165-171	0.1	
193	Efficient CFD code implementation for the ARM-based Mont-Blanc architecture. *Future Generation Computer Systems*, **2018**, 79, 786-796	7.5	17
192	Study of Stochastic Models for Subgrid Dispersion in Lagrangian-Eulerian Formulation. *ERCOFTAC Series*, **2018**, 235-242	0.1	
191	DNS of the Rising Motion of a Swarm of Bubbles in a Confined Vertical Channel. *ERCOFTAC Series*, **2018**, 125-131	0.1	2
190	Coherent Structures in a Flow Past a Circular Cylinder at Critical and Super-Critical Reynolds Numbers. *ERCOFTAC Series*, **2018**, 257-262	0.1	

189	Three dimensionality in the wake of the flow around a circular cylinder at Reynolds number 5000. *Computers and Fluids*, **2017**, 147, 102-118	2.8	21
188	Large Eddy Simulation of aTurbulent Diffusion Flame: Some Aspects of Subgrid Modelling Consistency. *Flow, Turbulence and Combustion*, **2017**, 99, 209-238	2.5	7
187	A low-dissipation convection scheme for the stable discretization of turbulent interfacial flow. *Computers and Fluids*, **2017**, 153, 102-117	2.8	6
186	LES-based Study of the Roughness Effects on the Wake of a Circular Cylinder from Subcritical to Transcritical Reynolds Numbers. *Flow, Turbulence and Combustion*, **2017**, 99, 729-763	2.5	9
185	Portable implementation model for CFD simulations. Application to hybrid CPU/GPU supercomputers. *International Journal of Computational Fluid Dynamics*, **2017**, 31, 396-411	1.2	7
184	A priori study of subgrid-scale features in turbulent Rayleigh-Bard convection. *Physics of Fluids*, **2017**, 29, 105103	4.4	12
183	A fluid-structure interaction solver for the fluid flow through reed type valves. *IOP Conference Series: Materials Science and Engineering*, **2017**, 232, 012032	0.4	2
182	DNS of the wall effect on the motion of bubble swarms. *Procedia Computer Science*, **2017**, 108, 2008-2017	1.6	15
181	A new subgrid characteristic length for turbulence simulations on anisotropic grids. *Physics of Fluids* , **2017**, 29, 115109	4.4	25
180	Numerical analysis of conservative unstructured discretisations for low Mach flows. *International Journal for Numerical Methods in Fluids*, **2017**, 84, 309-334	1.9	3
179	A level-set aided single-phase model for the numerical simulation of free-surface flow on unstructured meshes. *Computers and Fluids*, **2016**, 140, 97-110	2.8	6
178	Analysis and design of a drain water heat recovery storage unit based on PCM plates. *Applied Energy*, **2016**, 179, 1006-1019	10.7	20
177	Thermo-mechanical parametric analysis of packed-bed thermocline energy storage tanks. *Applied Energy*, **2016**, 179, 1106-1122	10.7	24
176	New parallel method for adjacent disconnected unstructured 3D meshes. *International Journal of Computational Fluid Dynamics*, **2016**, 30, 388-394	1.2	
175	A level-set model for thermocapillary motion of deformable fluid particles. *International Journal of Heat and Fluid Flow*, **2016**, 62, 324-343	2.4	22
174	Numerical simulations of conjugate convection combined with surface thermal radiation using an Immersed-Boundary Method. *Journal of Physics: Conference Series*, **2016**, 745, 032017	0.3	2
173	Direct Numerical Simulation of Multiphase Flows with Unstable Interfaces. *Journal of Physics: Conference Series*, **2016**, 745, 032114	0.3	
172	Heat and moisture insulation by means of air curtains: Application to refrigerated chambers. *International Journal of Refrigeration*, **2016**, 68, 1-14	3.8	14

171	Assessment of Subfilter Scalar Dissipation Rate and Mixture Fraction Variance Models. *Springer Proceedings in Physics*, **2016**, 69-73	0.2	
170	Building Proper Invariants for Eddy-Viscosity Models. *Springer Proceedings in Physics*, **2016**, 79-82	0.2	
169	DNS and LES of Viscoplastic-Type Non-Newtonian Fluid Flows. *Springer Proceedings in Physics*, **2016**, 117-120	0.2	
168	Particulate Immersed Boundary Method for complex fluid–particle interaction problems with heat transfer. *Computers and Mathematics With Applications*, **2016**, 71, 391-407	2.7	16
167	A coupled volume-of-fluid/level-set method for simulation of two-phase flows on unstructured meshes. *Computers and Fluids*, **2016**, 124, 12-29	2.8	71
166	New subgrid-scale models for large-eddy simulation of Rayleigh-Bénard convection. *Journal of Physics: Conference Series*, **2016**, 745, 032041	0.3	1
165	On the solution of the full three-dimensional Taylor bubble problem by using a coupled Conservative Level Set - Moving Mesh method. *Journal of Physics: Conference Series*, **2016**, 745, 032116	0.3	
164	On the extension of LES methods from incompressible to compressible turbulent flows with application to turbulent channel flow. *Journal of Physics: Conference Series*, **2016**, 745, 032047	0.3	
163	A level-set method for thermal motion of bubbles and droplets. *Journal of Physics: Conference Series*, **2016**, 745, 032113	0.3	1
162	Partitioned semi-implicit methods for simulation of biomechanical fluid-structure interaction problems. *Journal of Physics: Conference Series*, **2016**, 745, 032020	0.3	2
161	Numerical simulation of roughness effects on the flow past a circular cylinder. *Journal of Physics: Conference Series*, **2016**, 745, 032043	0.3	1
160	On the evolution of flow topology in turbulent Rayleigh-Bénard convection. *Physics of Fluids*, **2016**, 28, 115105	4.4	17
159	Drain water heat recovery storage-type unit for residential housing. *Applied Thermal Engineering*, **2016**, 103, 670-683	5.8	24
158	Optimising the Termofluids CFD code for petascale simulations. *International Journal of Computational Fluid Dynamics*, **2016**, 30, 425-430	1.2	9
157	Numerical and experimental investigation of a vertical LiBr falling film absorber considering wave regimes and in presence of mist flow. *International Journal of Thermal Sciences*, **2016**, 109, 342-361	4.1	17
156	Numerical Analysis of the Transpose Diffusive Term for Viscoplastic-Type Non-Newtonian Fluid Flows Using a Collocated Variable Arrangement. *Numerical Heat Transfer, Part B: Fundamentals*, **2015**, 67, 410-436	1.3	4
155	Multi-layered solid-PCM thermocline thermal storage concept for CSP plants. Numerical analysis and perspectives. *Applied Energy*, **2015**, 142, 337-351	10.7	68
154	Dynamic Thermoelastic Analysis of Thermocline-like Storage Tanks. *Energy Procedia*, **2015**, 69, 850-859	2.3	7

153	A multiple marker level-set method for simulation of deformable fluid particles. *International Journal of Multiphase Flow*, **2015**, 74, 125-142	3.6	34
152	Thermal Analysis of a Receiver for Linear Fresnel Reflectors. *Energy Procedia*, **2015**, 69, 405-414	2.3	1
151	Level-set simulations of buoyancy-driven motion of single and multiple bubbles. *International Journal of Heat and Fluid Flow*, **2015**, 56, 91-107	2.4	43
150	Numerical simulation of non-adiabatic capillary tubes. Special emphasis on the near-saturation zone. *International Journal of Refrigeration*, **2015**, 55, 153-167	3.8	4
149	Parametric Study of Two-tank TES Systems for CSP Plants. *Energy Procedia*, **2015**, 69, 1049-1058	2.3	14
148	Direct numerical simulation of a fully developed turbulent square duct flow up to . *International Journal of Heat and Fluid Flow*, **2015**, 54, 258-267	2.4	37
147	Building proper invariants for eddy-viscosity subgrid-scale models. *Physics of Fluids*, **2015**, 27, 065103	4.4	45
146	Fixed-grid numerical modeling of melting and solidification using variable thermo-physical properties Application to the melting of n-Octadecane inside a spherical capsule. *International Journal of Heat and Mass Transfer*, **2015**, 86, 721-743	4.9	27
145	Influence of rotation on the flow over a cylinder at Re = 5000. *International Journal of Heat and Fluid Flow*, **2015**, 55, 76-90	2.4	22
144	Turbulent flow around a square cylinder at Reynolds number 22,000: A DNS study. *Computers and Fluids*, **2015**, 123, 87-98	2.8	70
143	Parallel load balancing strategy for Volume-of-Fluid methods on 3-D unstructured meshes. *Journal of Computational Physics*, **2015**, 282, 269-288	4.1	17
142	PIBM: Particulate immersed boundary method for fluid particle interaction problems. *Powder Technology*, **2015**, 272, 1-13	5.2	28
141	Simulation of the two-fluid model on incompressible flow with Fractional Step method for both resolved and unresolved scale interfaces. *International Journal of Heat and Fluid Flow*, **2015**, 52, 15-27	2.4	1
140	Effect of collisions on the particle behavior in a turbulent square duct flow. *Powder Technology*, **2015**, 269, 320-336	5.2	26
139	Parallel adaptive mesh refinement for large-eddy simulations of turbulent flows. *Computers and Fluids*, **2015**, 110, 48-61	2.8	24
138	Advanced Multiphysics Modeling of Solar Tower Receivers Using Object-oriented Software and High Performance Computing Platforms. *Energy Procedia*, **2015**, 69, 1231-1240	2.3	2
137	Numerical analysis of the turbulent fluid flow through valves. Geometrical aspects influence at different positions. *IOP Conference Series: Materials Science and Engineering*, **2015**, 90, 012026	0.4	2
136	On the flow past a circular cylinder from critical to super-critical Reynolds numbers: Wake topology and vortex shedding. *International Journal of Heat and Fluid Flow*, **2015**, 55, 91-103	2.4	47

135	Flow Past a NACA0012 Airfoil: From Laminar Separation Bubbles to Fully Stalled Regime. *ERCOFTAC Series*, **2015**, 225-231	0.1	2
134	Direct Numerical Simulation of Low-Mach Turbulent Natural Convection Flow in an Open Cavity of Aspect Ratio 4. *ERCOFTAC Series*, **2015**, 345-352	0.1	
133	New Differential Operators for Large-Eddy Simulation and Regularization Modeling. *ERCOFTAC Series*, **2015**, 29-35	0.1	
132	Limits of the Oberbeck–Boussinesq approximation in a tall differentially heated cavity filled with water. *International Journal of Heat and Mass Transfer*, **2014**, 68, 489-499	4.9	30
131	Flow and turbulent structures around simplified car models. *Computers and Fluids*, **2014**, 96, 122-135	2.8	43
130	Three dimensional heat transfer analysis of combined conduction and radiation in honeycomb transparent insulation. *Solar Energy*, **2014**, 105, 58-70	6.8	12
129	Fixed-Grid Modeling of Solid-Liquid Phase Change in Unstructured Meshes Using Explicit Time Schemes. *Numerical Heat Transfer, Part B: Fundamentals*, **2014**, 65, 27-52	1.3	14
128	Symmetry-preserving discretization of Navier–Stokes equations on collocated unstructured grids. *Journal of Computational Physics*, **2014**, 258, 246-267	4.1	63
127	Large eddy and direct numerical simulations of a turbulent water-filled differentially heated cavity of aspect ratio 5. *International Journal of Heat and Mass Transfer*, **2014**, 77, 1084-1094	4.9	19
126	Development of flat plate collector with plastic transparent insulation and low-cost overheating protection system. *Applied Energy*, **2014**, 133, 206-223	10.7	32
125	On the CFD&HT of the Flow around a Parabolic Trough Solar Collector under Real Working Conditions. *Energy Procedia*, **2014**, 49, 1379-1390	2.3	15
124	Conservation Properties of Unstructured Finite-Volume Mesh Schemes for the Navier-Stokes Equations. *Numerical Heat Transfer, Part B: Fundamentals*, **2014**, 65, 53-79	1.3	45
123	Advanced CFD&HT Numerical Modeling of Solar Tower Receivers. *Energy Procedia*, **2014**, 49, 50-59	2.3	4
122	Wind speed effect on the flow field and heat transfer around a parabolic trough solar collector. *Applied Energy*, **2014**, 130, 200-211	10.7	21
121	A 3-D Volume-of-Fluid advection method based on cell-vertex velocities for unstructured meshes. *Computers and Fluids*, **2014**, 94, 14-29	2.8	42
120	A dynamic wall model for Large-Eddy simulations of wind turbine dedicated airfoils. *Journal of Physics: Conference Series*, **2014**, 524, 012147	0.3	
119	Unsteady forces on a circular cylinder at critical Reynolds numbers. *Physics of Fluids*, **2014**, 26, 125110	4.4	53
118	MPI-CUDA sparse matrix–vector multiplication for the conjugate gradient method with an approximate inverse preconditioner. *Computers and Fluids*, **2014**, 92, 244-252	2.8	23

117	Large-Eddy Simulations of Wind Turbine Dedicated Airfoils at High Reynolds Numbers. *Research Topics in Wind Energy*, **2014**, 147-152	0.2	2
116	A parallel MPI+OpenMP+OpenCL algorithm for hybrid supercomputations of incompressible flows. *Computers and Fluids*, **2013**, 88, 764-772	2.8	21
115	Modular object-oriented methodology for the resolution of molten salt storage tanks for CSP plants. *Applied Energy*, **2013**, 109, 402-414	10.7	32
114	Flow dynamics in the turbulent wake of a sphere at sub-critical Reynolds numbers. *Computers and Fluids*, **2013**, 80, 233-243	2.8	33
113	On the large-eddy simulations for the flow around aerodynamic profiles using unstructured grids. *Computers and Fluids*, **2013**, 84, 176-189	2.8	29
112	A parallel radial basis function interpolation method for unstructured dynamic meshes. *Computers and Fluids*, **2013**, 80, 44-54	2.8	21
111	A simple approach to discretize the viscous term with spatially varying (eddy-)viscosity. *Journal of Computational Physics*, **2013**, 253, 405-417	4.1	19
110	Low-frequency unsteadiness in the vortex formation region of a circular cylinder. *Physics of Fluids*, **2013**, 25, 085109	4.4	84
109	Heat transfer analysis and numerical simulation of a parabolic trough solar collector. *Applied Energy* , **2013**, 111, 581-592	10.7	172
108	Improved semi-analytical method for air curtains prediction. *Energy and Buildings*, **2013**, 66, 258-266	7	14
107	Parallel sweep-based preconditioner for the solution of the linear Boltzmann transport equation. *Computers and Fluids*, **2013**, 88, 884-890	2.8	1
106	Direct numerical simulation of a NACA0012 in full stall. *International Journal of Heat and Fluid Flow*, **2013**, 43, 194-203	2.4	44
105	New Differential Operators and Discretization Methods for Eddy-viscosity Models for LES. *Procedia Engineering*, **2013**, 61, 179-184		1
104	An OpenCL-based Parallel CFD Code for Simulations on Hybrid Systems with Massively-parallel Accelerators. *Procedia Engineering*, **2013**, 61, 81-86		4
103	DNS and regularization modeling of a turbulent differentially heated cavity of aspect ratio 5. *International Journal of Heat and Mass Transfer*, **2013**, 57, 171-182	4.9	15
102	Direct Numerical Simulation of Incompressible Flows on Unstructured Meshes Using Hybrid CPU/GPU Supercomputers. *Procedia Engineering*, **2013**, 61, 87-93		5
101	Numerical simulation of turbulence at lower costs: Regularization modeling. *Computers and Fluids*, **2013**, 80, 251-259	2.8	2
100	A new optimisation methodology used to study the effect of cover properties on night-time greenhouse climate. *Biosystems Engineering*, **2013**, 116, 130-143	4.8	10

99	Numerical simulation of wind flow around a parabolic trough solar collector. *Applied Energy*, **2013**, 107, 426-437	10.7	50
98	Transient and dynamic numerical simulation of the fluid flow through valves based on large eddy simulation models **2013**, 577-587		
97	Numerical resolution of the liquid–vapour two-phase flow by means of the two-fluid model and a pressure based method. *International Journal of Multiphase Flow*, **2012**, 43, 118-130	3.6	21
96	Numerical investigation of the location of maximum erosive wear damage in elbow: Effect of slurry velocity, bend orientation and angle of elbow. *Powder Technology*, **2012**, 217, 467-476	5.2	82
95	DNS and RANS modelling of a turbulent plane impinging jet. *International Journal of Heat and Mass Transfer*, **2012**, 55, 789-801	4.9	38
94	Assessment of the symmetry-preserving regularization model on complex flows using unstructured grids. *Computers and Fluids*, **2012**, 60, 108-116	2.8	12
93	Numerical solutions for the fluid flow and the heat transfer of viscoplastic-type non-Newtonian fluids. *Journal of Physics: Conference Series*, **2012**, 395, 012002	0.3	
92	Spectrally-consistent regularization modeling of turbulent natural convection flows. *Journal of Physics: Conference Series*, **2012**, 395, 012123	0.3	
91	Low-frequency variations in the wake of a circular cylinder atRe= 3900. *Journal of Physics: Conference Series*, **2011**, 318, 042038	0.3	3
90	Object-oriented simulation of reciprocating compressors: Numerical verification and experimental comparison. *International Journal of Refrigeration*, **2011**, 34, 1989-1998	3.8	18
89	Hybrid MPI+OpenMP parallelization of an FFT-based 3D Poisson solver with one periodic direction. *Computers and Fluids*, **2011**, 49, 101-109	2.8	13
88	Symmetry-preserving regularization of wall-bounded turbulent flows. *Journal of Physics: Conference Series*, **2011**, 318, 042060	0.3	
87	Parallel direct Poisson solver for discretisations with one Fourier diagonalisable direction. *Journal of Computational Physics*, **2011**, 230, 4723-4741	4.1	26
86	Direct numerical simulation of the flow over a sphere at Re = 3700. *Journal of Fluid Mechanics*, **2011**, 679, 263-287	3.7	108
85	Direct numerical simulation of the flow over a sphere at Re = 3700 □CORRIGENDUM. *Journal of Fluid Mechanics*, **2011**, 687, 606-606	3.7	
84	Numerical and Experimental Study of a Flat Plate Solar Collector with Transparent Insulation and Overheating Protection System **2011**,		4
83	Numerical Simulations of Thermal Energy Storage Systems with Phase Change Materials **2011**,		6
82	LES modeling of the turbulent flow over an Ahmed car. *ERCOFTAC Series*, **2011**, 89-94	0.1	2

81	Regularization modeling of buoyancy-driven flows. *ERCOFTAC Series*, **2011**, 21-26	0.1	
80	Verification of Multidimensional and Transient CFD Solutions. *Numerical Heat Transfer, Part B: Fundamentals*, **2010**, 57, 46-73	1.3	4
79	Direct numerical simulation of a differentially heated cavity of aspect ratio 4 with Rayleigh numbers up to 1011 Part I: Numerical methods and time-averaged flow. *International Journal of Heat and Mass Transfer*, **2010**, 53, 665-673	4.9	65
78	A scalable parallel Poisson solver for three-dimensional problems with one periodic direction. *Computers and Fluids*, **2010**, 39, 525-538	2.8	19
77	Parameter-free symmetry-preserving regularization modeling of a turbulent differentially heated cavity. *Computers and Fluids*, **2010**, 39, 1815-1831	2.8	23
76	Development and comparison of different spatial numerical schemes for the radiative transfer equation resolution using three-dimensional unstructured meshes. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2010**, 111, 264-273	2.1	16
75	Direct numerical simulation of a differentially heated cavity of aspect ratio 4 with Rayleigh numbers up to Part II: Heat transfer and flow dynamics. *International Journal of Heat and Mass Transfer*, **2010**, 53, 674-683	4.9	47
74	Numerical simulation and experimental validation of internal heat exchanger influence on CO2 trans-critical cycle performance. *International Journal of Refrigeration*, **2010**, 33, 664-674	3.8	38
73	Unsteady natural convection cooling of a water storage tank with an internal gas flue. *International Journal of Thermal Sciences*, **2010**, 49, 36-47	4.1	4
72	Two-phase flow distribution in multiple parallel tubes. *International Journal of Thermal Sciences*, **2010**, 49, 909-921	4.1	38
71	Modelling of fin-and-tube evaporators considering non-uniform in-tube heat transfer. *International Journal of Thermal Sciences*, **2010**, 49, 692-701	4.1	4
70	From extruded-2D to fully-3D geometries for DNS: a Multigrid-based extension of the Poisson solver. *Lecture Notes in Computational Science and Engineering*, **2010**, 219-226	0.3	1
69	Parallel direct Poisson solver for DNS of complex turbulent flows using Unstructured Meshes. *Lecture Notes in Computational Science and Engineering*, **2010**, 227-234	0.3	
68	Parameter-Free Symmetry-Preserving Regularization Modelling of Turbulent Natural Convection Flows. *Notes on Numerical Fluid Mechanics and Multidisciplinary Design*, **2010**, 369-375	0.3	
67	Numerical Study of the Transient Cooling Process of Water Storage Tanks under Heat Losses to the Environment. *Numerical Heat Transfer; Part A: Applications*, **2009**, 55, 1051-1074	2.3	9
66	TermoFluids: A new Parallel unstructured CFD code for the simulation of turbulent industrial problems on low cost PC Cluster. *Lecture Notes in Computational Science and Engineering*, **2009**, 275-282	0.3	26
65	Analysis of the heat transfer and friction factor correlations influence in the prediction of evaporating flows inside tubes. *International Journal of Refrigeration*, **2009**, 32, 1744-1755	3.8	4
64	Flamelet mathematical models for non-premixed laminar combustion. *Combustion and Flame*, **2009**, 156, 334-347	5.3	45

63	Implementation of two-equation soot flamelet models for laminar diffusion flames. *Combustion and Flame*, **2009**, 156, 621-632	5.3	26
62	Unsteady numerical simulation of the cooling process of vertical storage tanks under laminar natural convection. *International Journal of Thermal Sciences*, **2009**, 48, 708-721	4.1	45
61	Comparison of the performance of falling film and bubble absorbers for air-cooled absorption systems. *International Journal of Thermal Sciences*, **2009**, 48, 1355-1366	4.1	30
60	Multidimensional and Unsteady Simulation of Fin-and-Tube Heat Exchangers. *Numerical Heat Transfer; Part A: Applications*, **2009**, 56, 193-210	2.3	4
59	Analysis of the Dynamic Behavior of Refrigerated Spaces Using Air Curtains. *Numerical Heat Transfer; Part A: Applications*, **2009**, 55, 553-573	2.3	10
58	Direct Numerical Simulations and Symmetry-Preserving Regularization Simulations of the flow around a circular cylinder at Reynolds number 3900 **2009**,		4
57	Direct Numerical Simulation of the flow over a sphere at Re = 3700 **2009**,		3
56	DNS of Turbulent Natural Convection Flows on the MareNostrum supercomputer. *Lecture Notes in Computational Science and Engineering*, **2009**, 267-274	0.3	3
55	Schur Complement Methods for the solution of Poisson equation with unstructured meshes. *Lecture Notes in Computational Science and Engineering*, **2009**, 283-290	0.3	3
54	Thermal and Fluid Dynamic Simulation of Automotive Fin-and-Tube Heat Exchangers, Part 1: Mathematical Model. *Heat Transfer Engineering*, **2008**, 29, 484-494	1.7	17
53	Thermal and Fluid Dynamic Simulation of Automotive Fin-and-Tube Heat Exchangers, Part 2: Experimental Comparison. *Heat Transfer Engineering*, **2008**, 29, 495-502	1.7	11
52	Numerical Study of Plane and Round Impinging Jets using RANS Models. *Numerical Heat Transfer, Part B: Fundamentals*, **2008**, 54, 213-237	1.3	67
51	Experimental Facility for the Study of Liquid Overfeed Fin-and-Tube Evaporators: Validation of Numerical Models. *HVAC and R Research*, **2008**, 14, 221-238		
50	Numerical Experiments in Turbulent Natural Convection Using Two-Equation Eddy-Viscosity Models. *Journal of Heat Transfer*, **2008**, 130,	1.8	12
49	Modelling of the heat exchangers of a small capacity, hot water driven, air-cooled H2O□iBr absorption cooling machine. *International Journal of Refrigeration*, **2008**, 31, 75-86	3.8	21
48	Analysis of the flamelet concept in the numerical simulation of laminar partially premixed flames. *Combustion and Flame*, **2008**, 153, 71-83	5.3	15
47	Analysis of wall-function approaches using two-equation turbulence models. *International Journal of Heat and Mass Transfer*, **2008**, 51, 4940-4957	4.9	6
46	Direct numerical simulations of two- and three-dimensional turbulent natural convection flows in a differentially heated cavity of aspect ratio 4. *Journal of Fluid Mechanics*, **2007**, 586, 259-293	3.7	101

45	Analysis of different RANS models applied to turbulent forced convection. *International Journal of Heat and Mass Transfer*, **2007**, 50, 3749-3766	4.9	20
44	Coupled radiation and natural convection: Different approaches of the slw model for a non-gray gas mixture. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2007**, 107, 30-46	2.1	30
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