Assensi Oliva

List of Publications by Citations

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	Heat transfer analysis and numerical simulation of a parabolic trough solar collector. *Applied Energy* , **2013**, 111, 581-592	10.7	172
223	Numerical simulation of a latent heat thermal energy storage system with enhanced heat conduction. *Energy Conversion and Management*, **1998**, 39, 319-330	10.6	138
222	Direct numerical simulation of the flow over a sphere at Re = 3700. *Journal of Fluid Mechanics*, **2011** , 679, 263-287	3.7	108
221	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
220	Three-dimensional numerical simulation of convection and radiation in a differentially heated cavity using the discrete ordinates method. *International Journal of Heat and Mass Transfer*, **2004**, 47, 257-269	4.9	96
219	Low-frequency unsteadiness in the vortex formation region of a circular cylinder. *Physics of Fluids*, **2013**, 25, 085109	4.4	84
218	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
217	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
216	Turbulent flow around a square cylinder at Reynolds number 22,000: A DNS study. *Computers and Fluids*, **2015**, 123, 87-98	2.8	70
215	Verification of Finite Volume Computations on Steady-State Fluid Flow and Heat Transfer. *Journal of Fluids Engineering, Transactions of the ASME*, **2002**, 124, 11-21	2.1	70
214	Multi-layered solid-PCM thermocline thermal storage concept for CSP plants. Numerical analysis and perspectives. *Applied Energy*, **2015**, 142, 337-351	10.7	68
213	Numerical Study of Plane and Round Impinging Jets using RANS Models. *Numerical Heat Transfer, Part B: Fundamentals*, **2008**, 54, 213-237	1.3	67
212	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
211	Symmetry-preserving discretization of Navier Stokes equations on collocated unstructured grids. *Journal of Computational Physics*, **2014**, 258, 246-267	4.1	63
210	Parametric studies on automotive radiators. *Applied Thermal Engineering*, **2007**, 27, 2033-2043	5.8	61
209	Unsteady forces on a circular cylinder at critical Reynolds numbers. *Physics of Fluids*, **2014**, 26, 125110	4.4	53
208	Numerical analysis of the thermal behaviour of glazed ventilated facades in Mediterranean climates. Part II: applications and analysis of results. *Solar Energy*, **2003**, 75, 229-239	6.8	52

207	Numerical simulation of wind flow around a parabolic trough solar collector. *Applied Energy*, **2013**, 107, 426-437	10.7	50
206	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
205	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
204	Numerical simulation of capillary tube expansion devices behaviour with pure and mixed refrigerants considering metastable region. Part I: mathematical formulation and numerical model. *Applied Thermal Engineering*, **2002**, 22, 173-182	5.8	46
203	Building proper invariants for eddy-viscosity subgrid-scale models. *Physics of Fluids*, **2015**, 27, 065103	4.4	45
202	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
201	Flamelet mathematical models for non-premixed laminar combustion. *Combustion and Flame*, **2009**, 156, 334-347	5.3	45
200	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
199	Numerical simulation of capillary-tube expansion devices. *International Journal of Refrigeration*, **1995**, 18, 113-122	3.8	45
198	Direct numerical simulation of a NACA0012 in full stall. *International Journal of Heat and Fluid Flow*, **2013**, 43, 194-203	2.4	44
197	Numerical analysis of the thermal behaviour of ventilated glazed facades in Mediterranean climates. Part I: development and validation of a numerical model. *Solar Energy*, **2003**, 75, 217-228	6.8	44
196	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
195	Flow and turbulent structures around simplified car models. *Computers and Fluids*, **2014**, 96, 122-135	2.8	43
194	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
193	Detailed thermodynamic characterization of hermetic reciprocating compressors. *International Journal of Refrigeration*, **2005**, 28, 579-593	3.8	41
192	DNS and RANS modelling of a turbulent plane impinging jet. *International Journal of Heat and Mass Transfer*, **2012**, 55, 789-801	4.9	38
191	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
190	Two-phase flow distribution in multiple parallel tubes. *International Journal of Thermal Sciences*, **2010**, 49, 909-921	4.1	38

189	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
188	A multiple marker level-set method for simulation of deformable fluid particles. *International Journal of Multiphase Flow*, **2015**, 74, 125-142	3.6	34
187	Numerical experiments in turbulent natural and mixed convection in internal flows. *International Journal of Numerical Methods for Heat and Fluid Flow*, **1995**, 5, 13-33	4.5	34
186	Flow dynamics in the turbulent wake of a sphere at sub-critical Reynolds numbers. *Computers and Fluids*, **2013**, 80, 233-243	2.8	33
185	Development of flat plate collector with plastic transparent insulation and low-cost overheating protection system. *Applied Energy*, **2014**, 133, 206-223	10.7	32
184	Modular object-oriented methodology for the resolution of molten salt storage tanks for CSP plants. *Applied Energy*, **2013**, 109, 402-414	10.7	32
183	DIRECT NUMERICAL SIMULATION OF A THREE-DIMENSIONAL NATURAL-CONVECTION FLOW IN A DIFFERENTIALLY HEATED CAVITY OF ASPECT RATIO 4. *Numerical Heat Transfer; Part A: Applications* , **2004**, 45, 649-673	2.3	31
182	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
181	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
180	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
179	On the large-eddy simulations for the flow around aerodynamic profiles using unstructured grids. *Computers and Fluids*, **2013**, 84, 176-189	2.8	29
178	PIBM: Particulate immersed boundary method for fluid□particle interaction problems. *Powder Technology*, **2015**, 272, 1-13	5.2	28
177	Numerical simulation of capillary-tube expansion devices behaviour with pure and mixed refrigerants considering metastable region. Part II: experimental validation and parametric studies. *Applied Thermal Engineering*, **2002**, 22, 379-391	5.8	28
176	Numerical simulation and experimental validation of vapour compression refrigeration systems. Special emphasis on CO2 trans-critical cycles. *International Journal of Refrigeration*, **2005**, 28, 1225-1237	3.8	28
175	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
174	Numerical simulation of solar collectors: The effect of nonuniform and nonsteady state of the boundary conditions. *Solar Energy*, **1991**, 47, 359-373	6.8	27
173	Effect of collisions on the particle behavior in a turbulent square duct flow. *Powder Technology*, **2015**, 269, 320-336	5.2	26
172	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

171	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
170	Implementation of two-equation soot flamelet models for laminar diffusion flames. *Combustion and Flame*, **2009**, 156, 621-632	5.3	26
169	Parallel direct Poisson solver for discretisations with one Fourier diagonalisable direction. *Journal of Computational Physics*, **2011**, 230, 4723-4741	4.1	26
168	A new subgrid characteristic length for turbulence simulations on anisotropic grids. *Physics of Fluids* , **2017**, 29, 115109	4.4	25
167	Parallel adaptive mesh refinement for large-eddy simulations of turbulent flows. *Computers and Fluids*, **2015**, 110, 48-61	2.8	24
166	Thermo-mechanical parametric analysis of packed-bed thermocline energy storage tanks. *Applied Energy*, **2016**, 179, 1106-1122	10.7	24
165	Drain water heat recovery storage-type unit for residential housing. *Applied Thermal Engineering*, **2016**, 103, 670-683	5.8	24
164	MPI-CUDA sparse matrix□ector multiplication for the conjugate gradient method with an approximate inverse preconditioner. *Computers and Fluids*, **2014**, 92, 244-252	2.8	23
163	Parameter-free symmetry-preserving regularization modeling of a turbulent differentially heated cavity. *Computers and Fluids*, **2010**, 39, 1815-1831	2.8	23
162	Numerical simulation of solid-liquid phase change phenomena. *Computer Methods in Applied Mechanics and Engineering*, **1991**, 91, 1123-1134	5.7	23
161	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
160	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
159	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
158	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
157	Numerical resolution of the liquid□apour 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
156	A parallel MPI+OpenMP+OpenCL algorithm for hybrid supercomputations of incompressible flows. *Computers and Fluids*, **2013**, 88, 764-772	2.8	21
155	A parallel radial basis function interpolation method for unstructured dynamic meshes. *Computers and Fluids*, **2013**, 80, 44-54	2.8	21
154	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

153	Analysis and design of a drain water heat recovery storage unit based on PCM plates. *Applied Energy*, **2016**, 179, 1006-1019	10.7	20
152	THREE-DIMENSIONAL NUMERICAL STUDY OF MELTING INSIDE AN ISOTHERMAL HORIZONTAL CYLINDER. *Numerical Heat Transfer; Part A: Applications*, **1997**, 32, 531-553	2.3	20
151	Analysis of different RANS models applied to turbulent forced convection. *International Journal of Heat and Mass Transfer*, **2007**, 50, 3749-3766	4.9	20
150	A DIRECT PARALLEL ALGORITHM FOR THE EFFICIENT SOLUTION OF THE PRESSURE-CORRECTION EQUATION OF INCOMPRESSIBLE FLOW PROBLEMS USING LOOSELY COUPLED COMPUTERS. *Numerical Heat Transfer, Part B: Fundamentals*, **2002**, 41, 117-138	1.3	20
149	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
148	A simple approach to discretize the viscous term with spatially varying (eddy-)viscosity. *Journal of Computational Physics*, **2013**, 253, 405-417	4.1	19
147	A scalable parallel Poisson solver for three-dimensional problems with one periodic direction. *Computers and Fluids*, **2010**, 39, 525-538	2.8	19
146	Parametric studies on hermetic reciprocating compressors. *International Journal of Refrigeration*, **2005**, 28, 253-266	3.8	19
145	Numerical study of binary droplets collision in the main collision regimes. *Chemical Engineering Journal*, **2019**, 370, 477-498	14.7	18
144	Object-oriented simulation of reciprocating compressors: Numerical verification and experimental comparison. *International Journal of Refrigeration*, **2011**, 34, 1989-1998	3.8	18
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	Efficient CFD code implementation for the ARM-based Mont-Blanc architecture. *Future Generation Computer Systems*, **2018**, 79, 786-796	7.5	17
141	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
140	Analysis of Different Numerical Schemes for the Resolution of Convection-Diffusion Equations using Finite-Volume Methods on Three-Dimensional Unstructured Grids. Part I: Discretization Schemes. *Numerical Heat Transfer, Part B: Fundamentals*, **2006**, 49, 333-350	1.3	17
139	On the evolution of flow topology in turbulent Rayleigh-B□ard convection. *Physics of Fluids*, **2016**, 28, 115105	4.4	17
138	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
137	Direct numerical simulation of backward-facing step flow at and expansion ratio 2. *Journal of Fluid Mechanics*, **2019**, 863, 341-363	3.7	16
136	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

135	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
134	A direct Schur-Fourier decomposition for the efficient solution of high-order Poisson equations on loosely coupled parallel computers. *Numerical Linear Algebra With Applications*, **2006**, 13, 303-326	1.6	16
133	A level-set model for mass transfer in bubbly flows. *International Journal of Heat and Mass Transfer*, **2019**, 138, 335-356	4.9	15
132	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
131	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
130	DNS of the wall effect on the motion of bubble swarms. *Procedia Computer Science*, **2017**, 108, 2008-2017	1.6	15
129	Analysis of the flamelet concept in the numerical simulation of laminar partially premixed flames. *Combustion and Flame*, **2008**, 153, 71-83	5.3	15
128	Parametric Study of Two-tank TES Systems for CSP Plants. *Energy Procedia*, **2015**, 69, 1049-1058	2.3	14
127	Heat and moisture insulation by means of air curtains: Application to refrigerated chambers. *International Journal of Refrigeration*, **2016**, 68, 1-14	3.8	14
126	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
125	Improved semi-analytical method for air curtains prediction. *Energy and Buildings*, **2013**, 66, 258-266	7	14
124	A DIRECT SCHUR-FOURIER DECOMPOSITION FOR THE SOLUTION OF THE THREE-DIMENSIONAL POISSON EQUATION OF INCOMPRESSIBLE FLOW PROBLEMS USING LOOSELY COUPLED PARALLEL COMPUTERS. *Numerical Heat Transfer, Part B: Fundamentals*, **2003**, 43, 467-488	1.3	14
123	Detailed numerical simulation of laminar flames by a parallel multiblock algorithm using loosely coupled computers. *Combustion Theory and Modelling*, **2003**, 7, 525-544	1.5	14
122	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
121	Natural Convection in a Large, Inclined Channel With Asymmetric Heating and Surface Radiation. *Journal of Heat Transfer*, **2003**, 125, 812-820	1.8	13
120	Thermal and fluid-dynamic behaviour of double-pipe condensers and evaporators- numerical study. *International Journal of Numerical Methods for Heat and Fluid Flow*, **1995**, 5, 781-795	4.5	13
119	A priori study of subgrid-scale features in turbulent Rayleigh-Bénard convection. *Physics of Fluids*, **2017**, 29, 105103	4.4	12
118	Numerical study of droplet deformation in shear flow using a conservative level-set method. *Chemical Engineering Science*, **2019**, 207, 153-171	4.4	12

117	Three dimensional heat transfer analysis of combined conduction and radiation in honeycomb transparent insulation. *Solar Energy*, **2014**, 105, 58-70	6.8	12
116	Assessment of the symmetry-preserving regularization model on complex flows using unstructured grids. *Computers and Fluids*, **2012**, 60, 108-116	2.8	12
115	Numerical Experiments in Turbulent Natural Convection Using Two-Equation Eddy-Viscosity Models. *Journal of Heat Transfer*, **2008**, 130,	1.8	12
114	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
113	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
112	A semi-implicit coupling technique for fluid□structure interaction problems with strong added-mass effect. *Journal of Fluids and Structures*, **2018**, 80, 94-112	3.1	10
111	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
110	Analysis of the Dynamic Behavior of Refrigerated Spaces Using Air Curtains. *Numerical Heat Transfer; Part A: Applications*, **2009**, 55, 553-573	2.3	10
109	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
108	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
107	Optimising the Termofluids CFD code for petascale simulations. *International Journal of Computational Fluid Dynamics*, **2016**, 30, 425-430	1.2	9
106	Numerical simulation of dehumidifying fin-and-tube heat exchangers: Semi-analytical modelling and experimental comparison. *International Journal of Refrigeration*, **2007**, 30, 1266-1277	3.8	8
105	Large Eddy Simulation of aTurbulent Diffusion Flame: Some Aspects of Subgrid Modelling Consistency. *Flow, Turbulence and Combustion*, **2017**, 99, 209-238	2.5	7
104	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
103	Dynamic Thermoelastic Analysis of Thermocline-like Storage Tanks. *Energy Procedia*, **2015**, 69, 850-859	2.3	7
102	Effect of contaminant properties and temperature gradients on the efficiency of transient gaseous contaminant removal from an enclosure : a numerical study. *International Journal of Heat and Mass Transfer*, **1998**, 41, 3589-3609	4.9	7
101	Evaluation of a Small Capacity, Hot Water Driven, Air-Cooled H2O-LiBr Absorption Machine. *HVAC and R Research*, **2007**, 13, 59-75		7
100	Modeling and Numerical Simulation of the Thermal and Fluid Dynamic Behavior of Hermetic Reciprocating Compressors□Part 1: Theoretical Basis. *HVAC and R Research*, **2003**, 9, 215-235		7

99	A low-dissipation convection scheme for the stable discretization of turbulent interfacial flow. *Computers and Fluids*, **2017**, 153, 102-117	2.8	6
98	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
97	Analysis of wall-function approaches using two-equation turbulence models. *International Journal of Heat and Mass Transfer*, **2008**, 51, 4940-4957	4.9	6
96	Modeling and Numerical Simulation of the Thermal and Fluid Dynamic Behavior of Hermetic Reciprocating CompressorsPart 2: Experimental Investigation. *HVAC and R Research*, **2003**, 9, 237-249		6
95	Numerical Simulations of Thermal Energy Storage Systems with Phase Change Materials **2011**,		6
94	Direct Numerical Simulation of Incompressible Flows on Unstructured Meshes Using Hybrid CPU/GPU Supercomputers. *Procedia Engineering*, **2013**, 61, 87-93		5
93	Analysis of Different Numerical Schemes for the Resolution of Convection-Diffusion Equations using Finite-Volume Methods on Three-Dimensional Unstructured Grids. Part II: Numerical Analysis. *Numerical Heat Transfer, Part B: Fundamentals*, **2006**, 49, 351-375	1.3	5
92	Heat transfer simulation in vertical cylindrical enclosures for supercritical Rayleigh number and arbitrary side-wall conductivity. *International Journal of Heat and Mass Transfer*, **1999**, 42, 323-343	4.9	5
91	Numerical experiments on laminar natural convection in rectangular cavities with and without honeycomb-structures. *International Journal of Numerical Methods for Heat and Fluid Flow*, **1995**, 5, 423-443	4.5	5
90	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
89	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
88	Advanced CFD&HT Numerical Modeling of Solar Tower Receivers. *Energy Procedia*, **2014**, 49, 50-59	2.3	4
87	An OpenCL-based Parallel CFD Code for Simulations on Hybrid Systems with Massively-parallel Accelerators. *Procedia Engineering*, **2013**, 61, 81-86		4
86	Verification of Multidimensional and Transient CFD Solutions. *Numerical Heat Transfer, Part B: Fundamentals*, **2010**, 57, 46-73	1.3	4
85	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
84	Multidimensional and Unsteady Simulation of Fin-and-Tube Heat Exchangers. *Numerical Heat Transfer; Part A: Applications*, **2009**, 56, 193-210	2.3	4
83	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
82	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

81	Direct Numerical Simulations and Symmetry-Preserving Regularization Simulations of the flow around a circular cylinder at Reynolds number 3900 **2009**,		4
80	Numerical and Experimental Study of a Flat Plate Solar Collector with Transparent Insulation and Overheating Protection System **2011**,		4
79	On the feasibility of affordable high-fidelity CFD simulations for indoor environment design and control. *Building and Environment*, **2020**, 184, 107144	6.5	4
78	A numerical study of liquid atomization regimes by means of conservative level-set simulations. *Computers and Fluids*, **2019**, 179, 137-149	2.8	4
77	DNS of Mass Transfer from Bubbles Rising in a Vertical Channel. *Lecture Notes in Computer Science*, **2019**, 596-610	0.9	3
76	Numerical analysis of conservative unstructured discretisations for low Mach flows. *International Journal for Numerical Methods in Fluids*, **2017**, 84, 309-334	1.9	3
75	Low-frequency variations in the wake of a circular cylinder atRe= 3900. *Journal of Physics: Conference Series*, **2011**, 318, 042038	0.3	3
74	Flow topology dynamics in a three-dimensional phase space for turbulent Rayleigh-B□ard convection. *Physical Review Fluids*, **2020**, 5,	2.8	3
73	Direct Numerical Simulation of the flow over a sphere at Re = 3700 **2009**,		3
72	DNS of Turbulent Natural Convection Flows on the MareNostrum supercomputer. *Lecture Notes in Computational Science and Engineering*, **2009**, 267-274	0.3	3
71	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
70	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
69	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
68	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
67	DNS of the Rising Motion of a Swarm of Bubbles in a Confined Vertical Channel. *ERCOFTAC Series*, **2018**, 125-131	0.1	2
66	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
65	Numerical simulation of turbulence at lower costs: Regularization modeling. *Computers and Fluids*, **2013**, 80, 251-259	2.8	2
64	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

63	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
62	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
61	Flow Past a NACA0012 Airfoil: From Laminar Separation Bubbles to Fully Stalled Regime. *ERCOFTAC Series*, **2015**, 225-231	0.1	2
60	A novel Sigma□Delta ADC application oriented to test hermetic reciprocating compressors. *Measurement Science and Technology*, **2004**, 15, 2207-2214	2	2
59	Simulation of Flow and Heat Transfer in Impinging Jets Using RANS Models **2006**,		2
58	Large-Eddy Simulations of Wind Turbine Dedicated Airfoils at High Reynolds Numbers. *Research Topics in Wind Energy*, **2014**, 147-152	0.2	2
57	LES modeling of the turbulent flow over an Ahmed car. *ERCOFTAC Series*, **2011**, 89-94	0.1	2
56	TWO AND THREE DIMENSIONAL ASPECTS IN THE THERMAL BEHAVIOUR OF SOLAR COLLECTORS **1988**, 1076-1080		2
55	A parallel algorithm for the detailed numerical simulation of reactive flows **2000**, 389-396		2
54	Partitioned semi-implicit methods for simulation of biomechanical fluid-structure interaction problems. *Journal of Physics: Conference Series*, **2016**, 745, 032020	0.3	2
53	New Strategies for Mitigating the Gray Area in Delayed-Detached Eddy Simulation Models. *AIAA Journal*, **2021**, 59, 3331-3345	2.1	2
52	DNS of Thermocapillary Migration of Deformable Droplets. *ERCOFTAC Series*, **2019**, 207-213	0.1	1
51	Thermal Analysis of a Receiver for Linear Fresnel Reflectors. *Energy Procedia*, **2015**, 69, 405-414	2.3	1
50	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
49	Parallel sweep-based preconditioner for the solution of the linear Boltzmann transport equation. *Computers and Fluids*, **2013**, 88, 884-890	2.8	1
48	New Differential Operators and Discretization Methods for Eddy-viscosity Models for LES. *Procedia Engineering*, **2013**, 61, 179-184		1
47	Numerical simulation of the thermal behaviour of heat exchangers and storage devices using multilevel and ADI techniques. *Computer Methods in Applied Mechanics and Engineering*, **1991**, 91, 1203-1218	5.7	1
46	DNS of Drag-Force and Reactive Mass Transfer in Gravity-Driven Bubbly Flows. *ERCOFTAC Series*, **2020**, 119-125	0.1	1

45	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
44	DNS of Unequal Size Droplets Collision Using a Moving-Mesh/Level-Set Method. *ERCOFTAC Series*, **2020**, 103-109	0.1	1
43	On a Proper Tensor-Diffusivity Model for Large-Eddy Simulations of Buoyancy-Driven Flows. *ERCOFTAC Series*, **2020**, 417-423	0.1	1
42	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
41	Direct Numerical Simulation of Turbulent Natural Convection Flows Using PC Clusters **2004**, 481-488		1
40	A parallel algorithm for the detailed numerical simulation of reactive flows **2000**, 389-389		1
39	New subgrid-scale models for large-eddy simulation of Rayleigh-B□ard convection. *Journal of Physics: Conference Series*, **2016**, 745, 032041	0.3	1
38	A level-set method for thermal motion of bubbles and droplets. *Journal of Physics: Conference Series*, **2016**, 745, 032113	0.3	1
37	Numerical simulation of roughness effects on the flow past a circular cylinder. *Journal of Physics: Conference Series*, **2016**, 745, 032043	0.3	1
36	Spectrally-Consistent Regularization of Navier□tokes Equations. *Journal of Scientific Computing*, **2019**, 79, 992-1014	2.3	1
35	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
34	On the implementation of flux limiters in algebraic frameworks. *Computer Physics Communications*, **2021**, 108230	4.2	0
33	A CFD-based surrogate model for predicting flow parameters in a ventilated room using sensor readings. *Energy and Buildings*, **2022**, 266, 112146	7	0
32	A New Subgrid Characteristic Length for LES. *ERCOFTAC Series*, **2019**, 135-141	0.1	
31	Building Proper Invariants for Large-Eddy Simulation. *ERCOFTAC Series*, **2018**, 165-171	0.1	
30	Study of Stochastic Models for Subgrid Dispersion in Lagrangian-Eulerian Formulation. *ERCOFTAC Series*, **2018**, 235-242	0.1	
29	Coherent Structures in a Flow Past a Circular Cylinder at Critical and Super-Critical Reynolds Numbers. *ERCOFTAC Series*, **2018**, 257-262	0.1	
28	New parallel method for adjacent disconnected unstructured 3D meshes. *International Journal of Computational Fluid Dynamics*, **2016**, 30, 388-394	1.2	

27	Direct Numerical Simulation of Multiphase Flows with Unstable Interfaces. *Journal of Physics: Conference Series*, **2016**, 745, 032114	0.3
26	Assessment of Subfilter Scalar Dissipation Rate and Mixture Fraction Variance Models. *Springer Proceedings in Physics*, **2016**, 69-73	0.2
25	Building Proper Invariants for Eddy-Viscosity Models. *Springer Proceedings in Physics*, **2016**, 79-82	0.2
24	DNS and LES of Viscoplastic-Type Non-Newtonian Fluid Flows. *Springer Proceedings in Physics*, **2016**, 117-120	0.2
23	A dynamic wall model for Large-Eddy simulations of wind turbine dedicated airfoils. *Journal of Physics: Conference Series*, **2014**, 524, 012147	0.3
22	Transient and dynamic numerical simulation of the fluid flow through valves based on large eddy simulation models **2013**, 577-587	
21	Symmetry-preserving regularization of wall-bounded turbulent flows. *Journal of Physics: Conference Series*, **2011**, 318, 042060	0.3
20	Direct numerical simulation of the flow over a sphere at Re = 3700 □CORRIGENDUM. *Journal of Fluid Mechanics*, **2011**, 687, 606-606	3.7
19	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
18	Spectrally-consistent regularization modeling of turbulent natural convection flows. *Journal of Physics: Conference Series*, **2012**, 395, 012123	0.3
17	Direct Numerical Simulation of Turbulent Natural Convection Flows on PC Clusters Using a Fourth-Order Symmetry-Preserving Method **1996**, 53-60	
16	Experimental Facility for the Study of Liquid Overfeed Fin-and-Tube Evaporators: Validation of Numerical Models. *HVAC and R Research*, **2008**, 14, 221-238	
15	Feasibility of CO2 Compressors for Light Commercial Appliances. *HVAC and R Research*, **2007**, 13, 427-443	
14	Direct Numerical Simulation of Turbulent Flows on a low cost PC Cluster **2006**, 109-116	
13	Flow Over a Realistic Car Model: WMLES Assessment and Turbulent Structures. *ERCOFTAC Series*, **2019**, 497-503	0.1
12	Detailed prediction of fluid-solid coupled phenomena of turbulent flow through reed valves. *IOP Conference Series: Materials Science and Engineering*,604, 012064	0.4
11	Improving DES Capabilities for Predicting Kelvin□Helmholtz Instabilities. Comparison with a Backward-Facing Step DNS. *ERCOFTAC Series*, **2020**, 457-462	0.1
10	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

9	New Differential Operators for Large-Eddy Simulation and Regularization Modeling. *ERCOFTAC Series*, **2015**, 29-35	0.1
8	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
7	Parameter-Free Symmetry-Preserving Regularization Modelling of Turbulent Natural Convection Flows. *Notes on Numerical Fluid Mechanics and Multidisciplinary Design*, **2010**, 369-375	0.3
6	Regularization modeling of buoyancy-driven flows. *ERCOFTAC Series*, **2011**, 21-26	0.1
5	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
4	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
3	Numerical simulation of fluid structure interaction in free-surface flows: the WEC case. *Journal of Physics: Conference Series*, **2021**, 2116, 012122	0.3
2	Electrical conductivity of concentrated LiBr Ethylene-Glycol and water ternary system. *Journal of Physics: Conference Series*, **2021**, 2116, 012069	0.3
1	DNS of´Mass Transfer in´Bi-dispersed Bubble Swarms. *Lecture Notes in Computer Science*, **2022**, 284-296	0.9