Marcelo J S De Lemos

List of Publications by Citations

143 papers	2,137 citations	28 h-index	42 g-index
193 ext. papers	2,464 ext. citations	3.4 avg, IF	5.49 L-index

#	Paper	IF	Citations
143	Macroscopic turbulence modeling for incompressible flow through undeformable porous media. *International Journal of Heat and Mass Transfer*, **2001**, 44, 1081-1093	4.9	223
142	On the definition of turbulent kinetic energy for flow in porous media. *International Communications in Heat and Mass Transfer*, **2000**, 27, 211-220	5.8	100
141	A Correlation for Interfacial Heat Transfer Coefficient for Turbulent Flow Over an Array of Square Rods. *Journal of Heat Transfer*, **2006**, 128, 444-452	1.8	77
140	Turbulent flow in a channel occupied by a porous layer considering the stress jump at the interface. *International Journal of Heat and Mass Transfer*, **2003**, 46, 5113-5121	4.9	73
139	Recent Mathematical Models for Turbulent Flow in Saturated Rigid Porous Media. *Journal of Fluids Engineering, Transactions of the ASME*, **2001**, 123, 935-940	2.1	68
138	Interfacial heat transfer coefficient for non-equilibrium convective transport in porous media. *International Communications in Heat and Mass Transfer*, **2005**, 32, 666-676	5.8	62
137	COMPUTATION OF TURBULENT FLOW IN POROUS MEDIA USING A LOW-REYNOLDS K -□ MODELAND AN INFINITE ARRAY OF TRANSVERSALLY DISPLACED ELLIPTIC RODS. *Numerical Heat Transfer; Part A: Applications*, **2003**, 43, 585-602	2.3	58
136	Laminar natural convection in cavities filled with circular and square rods. *International Communications in Heat and Mass Transfer*, **2005**, 32, 1289-1297	5.8	58
135	On the Mathematical Description and Simulation of Turbulent Flow in a Porous Medium Formed by an Array of Elliptic Rods. *Journal of Fluids Engineering, Transactions of the ASME*, **2001**, 123, 941-947	2.1	58
134	SIMULATION OF TURBULENT FLOW IN POROUS MEDIA USING A SPATIALLY PERIODIC ARRAY AND A LOW RE TWO-EQUATION CLOSURE. *Numerical Heat Transfer; Part A: Applications*, **2001**, 39, 35-59	2.3	57
133	Heat transfer in enclosures having a fixed amount of solid material simulated with heterogeneous and homogeneous models. *International Journal of Heat and Mass Transfer*, **2005**, 48, 4748-4765	4.9	54
132	Turbulent natural convection in a porous square cavity computed with a macroscopic □model. *International Journal of Heat and Mass Transfer*, **2004**, 47, 5639-5650	4.9	52
131	Flow and Heat Transfer in a Parallel-Plate Channel with Porous and Solid Baffles. *Numerical Heat Transfer; Part A: Applications*, **2006**, 49, 471-494	2.3	51
130	NUMERICAL ANALYSIS OF THE STRESS JUMP INTERFACE CONDITION FOR LAMINAR FLOW OVER A POROUS LAYER. *Numerical Heat Transfer; Part A: Applications*, **2003**, 43, 603-617	2.3	49
129	Turbulent kinetic energy distribution across the interface between a porous medium and a clear region. *International Communications in Heat and Mass Transfer*, **2005**, 32, 107-115	5.8	49
128	Turbulent flow over a layer of a highly permeable medium simulated with a diffusion-jump model for the interface. *International Journal of Heat and Mass Transfer*, **2006**, 49, 546-556	4.9	46
127	Analysis of convective heat transfer for turbulent flow in saturated porous media. *International Communications in Heat and Mass Transfer*, **2000**, 27, 825-834	5.8	44

126	Thermal Analysis of an Impinging Jet on a Plate With and Without a Porous Layer. *Numerical Heat Transfer; Part A: Applications*, **2008**, 54, 1022-1041	2.3	42
125	Thermal dispersion in porous media as a function of the solid–fluid conductivity ratio. *International Journal of Heat and Mass Transfer*, **2008**, 51, 5359-5367	4.9	38
124	Numerical Solution of Turbulent Channel Flow Past a Backward-Facing Step with a Porous Insert Using Linear and Nonlinear k-? Models. *Journal of Porous Media*, **2005**, 8, 13-30	2.9	37
123	A macroscopic two-energy equation model for turbulent flow and heat transfer in highly porous media. *International Journal of Heat and Mass Transfer*, **2010**, 53, 2424-2433	4.9	35
122	TURBULENT MASS TRANSPORT IN SATURATED RIGID POROUS MEDIA. *International Communications in Heat and Mass Transfer*, **2003**, 30, 105-113	5.8	35
121	Simulation of laminar impinging jet on a porous medium with a thermal non-equilibrium model. *International Journal of Heat and Mass Transfer*, **2010**, 53, 5089-5101	4.9	34
120	Laminar Confined Impinging Jet into a Porous Layer. *Numerical Heat Transfer; Part A: Applications*, **2008**, 54, 151-177	2.3	32
119	Modeling of turburlent natural convection in porous media. *International Communications in Heat and Mass Transfer*, **2003**, 30, 615-624	5.8	31
118	Simulation of turbulent natural convection in a porous cylindrical annulus using a macroscopic two-equation model. *International Journal of Heat and Mass Transfer*, **2006**, 49, 4340-4351	4.9	30
117	Numerical simulation of turbulent combustion in porous materials. *International Communications in Heat and Mass Transfer*, **2009**, 36, 996-1001	5.8	28
116	Modeling of double-diffusive turbulent natural convection in porous media. *International Journal of Heat and Mass Transfer*, **2004**, 47, 4233-4241	4.9	28
115	**2008**,		27
114	Laminar flow with combustion in inert porous media. *International Communications in Heat and Mass Transfer*, **2012**, 39, 896-903	5.8	23
113	Double-diffusive turbulent natural convection in a porous square cavity with opposing temperature and concentration gradients. *International Communications in Heat and Mass Transfer*, **2009**, 36, 991-995	5.8	23
112	Turbulent Flow in Wavy Channels Simulated with Nonlinear Models and a New Implicit Formulation. *Numerical Heat Transfer; Part A: Applications*, **2009**, 56, 301-324	2.3	22
111	Optimal multigrid solutions of two-dimensional convection–conduction problems. *Applied Mathematics and Computation*, **2004**, 152, 725-742	2.7	20
110	Simulation of turbulent impinging jet into a cylindrical chamber with and without a porous layer at the bottom. *International Journal of Heat and Mass Transfer*, **2009**, 52, 680-693	4.9	17
109	Laminar and turbulent free convection in a composite enclosure. *International Journal of Heat and Mass Transfer*, **2009**, 52, 588-596	4.9	16

108	Simulation of a Turbulent Impinging Jet into a Layer of Porous Material Using a Two-Energy Equation Model. *Numerical Heat Transfer; Part A: Applications*, **2011**, 59, 769-798	2.3	15
107	Laminar heat transfer in a moving porous bed reactor simulated with a macroscopic two-energy equation model. *International Journal of Heat and Mass Transfer*, **2012**, 55, 1922-1930	4.9	13
106	Turbulent Flow Around Fluid-Porous Interfaces Computed with a Diffusion-Jump Model for k and ε Transport Equations. *Transport in Porous Media*, **2009**, 78, 331-346	3.1	13
105	Computation of turbulent heat transfer in a moving porous bed using a macroscopic two-energy equation model. *International Communications in Heat and Mass Transfer*, **2008**, 35, 1262-1266	5.8	13
104	Analysis of turbulent double-diffusive free convection in porous media using the two-energy equation model. *International Communications in Heat and Mass Transfer*, **2014**, 52, 132-139	5.8	12
103	Computation of turbulent free convection in left and right tilted porous enclosures using a macroscopic kε model. *International Journal of Heat and Mass Transfer*, **2008**, 51, 5279-5287	4.9	12
102	Analysis of turbulent flows in fixed and moving permeable media. *Acta Geophysica*, **2008**, 56, 562-583	2.2	12
101	Turbulent Heat Transfer in an Enclosure With a Horizontal Permeable Plate in the Middle. *Journal of Heat Transfer*, **2006**, 128, 1122-1129	1.8	12
100	Fundamentals of the double-decomposition concept for turbulent transport in permeable media. *Materialwissenschaft Und Werkstofftechnik*, **2005**, 36, 586-593	0.9	12
99	Turbulence modeling in combined convection in mercury pipe flow. *International Journal of Heat and Mass Transfer*, **1985**, 28, 1067-1088	4.9	12
98	Turbulent transport modeling for heated flow in rigid porous media **2002**,		12
97	Laminar heat transfer in a porous channel simulated with a two-energy equation model. *International Communications in Heat and Mass Transfer*, **2009**, 36, 1002-1007	5.8	11
96	Analysis of turbulent combustion in inert porous media. *International Communications in Heat and Mass Transfer*, **2010**, 37, 331-336	5.8	11
95	Moving Porous Media **2012**, 133-140		10
94	Turbulent flow in a composite channel. *International Communications in Heat and Mass Transfer*, **2011**, 38, 1019-1023	5.8	10
93	A Turbulent Impinging Jet on a Plate Covered with a Porous Layer. *Numerical Heat Transfer; Part A: Applications*, **2010**, 58, 429-456	2.3	10
92	FLOW AND HEAT TRANSFER IN RECTANGULAR ENCLOSURES USING A NEW BLOCK-IMPLICIT NUMERICAL METHOD. *Numerical Heat Transfer, Part B: Fundamentals*, **2000**, 37, 489-508	1.3	10
91	Turbulent heat transfer past a sudden expansion with a porous insert using a nonlinear model. *Numerical Heat Transfer; Part A: Applications*, **2017**, 71, 290-310	2.3	9

90	Effect of porous material properties on thermal efficiencies of a thermocline storage tank. *Applied Thermal Engineering*, **2020**, 173, 115194	5.8	9
89	Turbulent free convection in a porous square cavity using the thermal equilibirum model. *International Communications in Heat and Mass Transfer*, **2013**, 49, 10-16	5.8	9
88	Turbulent flow in porous combustor using the thermal non-equilibrium hypothesis and radiation boundary condition. *International Journal of Heat and Mass Transfer*, **2017**, 115, 1043-1054	4.9	9
87	Optimization of convergence acceleration in multigrid numerical solutions of conductive□onvective problems. *Applied Mathematics and Computation*, **2001**, 124, 215-226	2.7	9
86	Transient performance of a thermocline energy storage system using the two-energy equation model. *International Journal of Heat and Mass Transfer*, **2020**, 150, 119323	4.9	8
85	A thermal study of a new oil well plugging & abandonment operation. *International Journal of Thermal Sciences*, **2020**, 155, 106421	4.1	8
84	Turbulent free convection in a porous cavity using the two-temperature model and the high Reynolds closure. *International Journal of Heat and Mass Transfer*, **2014**, 79, 105-115	4.9	8
83	Thermal performance of a solar volumetric receiver using the two-energy equation model and radiation boundary condition. *International Communications in Heat and Mass Transfer*, **2019**, 104, 101-108	5.8	7
82	Passive Laminar Heat Transfer Across Porous Cavities Using the Thermal Non-Equilibrium Model. *Numerical Heat Transfer; Part A: Applications*, **2014**, 66, 1173-1194	2.3	7
81	Temperature Distribution in a Counterflow Moving Bed Under a Thermal Nonequilibrium Condition. *Numerical Heat Transfer; Part A: Applications*, **2012**, 61, 1-17	2.3	7
80	Detailed Numerical Modeling and Simulation of Fe2O3□l Thermite Reaction. *Propellants, Explosives, Pyrotechnics*, **2021**, 46, 806-824	1.7	7
79	Single-point transition modeling using the laminar kinetic energy concept. *International Journal of Heat and Mass Transfer*, **2015**, 89, 1095-1109	4.9	6
78	Use of porous-continuum and continuum models for determining the permeability of porous cavities under turbulent free convection. *Numerical Heat Transfer, Part B: Fundamentals*, **2018**, 73, 78-93	1.3	6
77	Mathematical modeling and numerical results of power-law fluid flow over a finite porous medium. *International Journal of Thermal Sciences*, **2016**, 100, 126-137	4.1	6
76	Turbulence modeling in a parallel flow moving porous bed. *International Communications in Heat and Mass Transfer*, **2013**, 48, 1-7	5.8	6
75	Turbulent kinetic energy in a moving porous bed. *International Communications in Heat and Mass Transfer*, **2008**, 35, 1049-1052	5.8	6
74	A new hybrid analytical/numerical method for transient heat conduction in composite hollow cylinders applied to plug and abandonment of oil wells. *International Journal of Thermal Sciences*, **2021**, 168, 106981	4.1	6
73	NUMERICAL SIMULATION OF TURBULENT FLOW IN SMALL-ANGLE DIFFUSERS AND CONTRACTIONS USING A NEW WALL TREATMENT AND A LINEAR HIGH REYNOLDS k□MODEL. *Numerical Heat Transfer; Part A: Applications*, **2004**, 45, 911-933	2.3	5

72	Numerical Treatment of the Stress Jump Interface Condition for Laminar Flow in a Channel Partially Filled With a Porous Material **2002**, 715		5
71	Filtration Gas Combustion in a Porous Ceramic Annular Burner for Thermoelectric Power Conversion. *Heat Transfer Engineering*, **2019**, 40, 1196-1210	1.7	5
70	Double-diffusive laminar free convection in a porous cavity simulated with the two-energy equation model. *International Communications in Heat and Mass Transfer*, **2017**, 82, 89-96	5.8	4
69	Effect of Thermal Conductivity Ratio on Laminar Double-Diffusive Free Convection in a Porous Cavity. *Journal of Heat Transfer*, **2017**, 139,	1.8	4
68	Turbulent heat transfer in a counterflow moving porous bed using a two-energy equation model. *International Journal of Heat and Mass Transfer*, **2014**, 72, 98-113	4.9	4
67	Numerical simulation of a crossflow moving porous bed using a thermal non-equilibrium model. *International Journal of Heat and Mass Transfer*, **2013**, 67, 311-325	4.9	4
66	THE DOUBLE-DECOMPOSITION CONCEPT FOR TURBULENT TRANSPORT IN POROUS MEDIA **2005**, 1-33		4
65	The effects of Peclet number and cycling strategy on multigrid numerical solutions of conductive-convective problems **1998**,		4
64	Radiant and convective heat transfer for flow of a transparent gas in a short tube with sinusoidal wall heat flux. *International Communications in Heat and Mass Transfer*, **1985**, 12, 505-520	5.8	4
63	Transient behavior and thermal efficiency of volumetric heat receivers. *International Journal of Heat and Mass Transfer*, **2020**, 149, 119128	4.9	4
62	Turbulent natural convection in a composite annulus using a novel numerical scheme and the thermal nonequilibrium hypothesis. *Numerical Heat Transfer; Part A: Applications*, **2017**, 71, 837-854	2.3	3
61	Turbulent flow with combustion in a moving bed. *International Communications in Heat and Mass Transfer*, **2012**, 39, 1-7	5.8	3
60	A block-implicit numerical procedure for simulation of buoyant swirling flows in a model furnace. *International Journal for Numerical Methods in Fluids*, **2003**, 43, 281-299	1.9	3
59	A BLOCK-IMPLICIT METHOD FOR NUMERICAL SIMULATION OF SWIRLING FLOWS IN A MODEL COMBUSTOR. *International Communications in Heat and Mass Transfer*, **2003**, 30, 369-378	5.8	3
58	Turbulent Heat and Mass Transfer in Porous Media **2004**, 157-168		3
57	Turbulent flow and heat transfer in a partially filled ventilated cavity using the local thermal non-equilibrium method. *International Journal of Thermal Sciences*, **2021**, 164, 106844	4.1	3
56	THERMAL EFFICIENCY OF SOLAR VOLUMETRIC RECEIVERS USING CONSTANT AND VARIABLE FLUID PROPERTIES. *International Journal of Energy for A Clean Environment*, **2021**, 22, 95-111	1.5	3
55	Unsteady heat conduction with phase change applied to a novel thermal plug and abandonment process. *International Journal of Thermal Sciences*, **2021**, 170, 107155	4.1	3

54	Modified Lewis Number and Buoyancy Ratio Effects on Turbulent Double-Diffusive Convection in Porous Media Using the Thermal Nonequilibrium Model. *Journal of Heat Transfer*, **2019**, 141,	1.8	2
53	A novel implicit numerical treatment for non-linear turbulence models using high and low Reynolds number formulations. *International Journal for Numerical Methods in Fluids*, **2011**, 66, 1475-1494	1.9	2
52	Heat-Transfer Coefficient for Cellular Materials Modelled as an Array of Elliptic Rods. *Advanced Engineering Materials*, **2009**, 11, 837-842	3.5	2
51	Turbulent Flow Around a Wavy Interface Between a Porous Medium and a Clear Domain **2003**, 1509		2
50	Modeling Turbulence in Permeable Media: The Double-Decomposition Concept Revisited **2022**, 4, 124-131	2.1	2
49	Thermodynamics of thermite reactions for a new thermal plug and abandonment process. *Continuum Mechanics and Thermodynamics*,1	3.5	2
48	Role of porosity and solid-to-fluid thermal conductivity ratio on turbulent combined heat and mass transfer in a porous cavity. *International Journal of Heat and Mass Transfer*, **2019**, 132, 221-237	4.9	2
47	FRICTION FACTOR FOR DUCTS OF SINUSOIDAL WALLS WITH A LAYER OF POROUS MATERIAL. *International Journal of Energy for A Clean Environment*, **2021**, 22, 51-63	1.5	2
46	A new numerical scheme for using the two-energy equation model for turbulent buoyant flow in a composite enclosure. *Numerical Heat Transfer, Part B: Fundamentals*, **2018**, 74, 578-602	1.3	2
45	STRATIFICATION AND ENERGY LOSSES IN A STANDBY CYCLE OF A THERMAL ENERGY STORAGE SYSTEM. *International Journal of Energy for A Clean Environment*, **2021**, 22, 1-32	1.5	2
44	Spatial Averaging over a Variable Volume and Its Application to Boundary-Layer Flows over Permeable Walls. *Journal of Hydraulic Engineering*, **2015**, 141, 04014087	1.8	1
43	Applications in Hybrid Media **2012**, 199-352		1
42	Governing Equations **2012**, 19-26		1
41	Simulation of Turbulent Combustion in Porous Materials with One- and Two-Energy Equation Models. *Advanced Structured Materials*, **2010**, 443-460	0.6	1
40	Laminar Heat Transfer in a Parallel Plate Channel With Solid and Porous Baffles **2004**, 117		1
39	Simulation of Turbulent Flow in a Channel Partially Occupied by a Porous Layer Considering the Stress Jump at the Interface **2002**, 639		1
38	Multigrid correction-storage formulation applied to the numerical solution of incompressible laminar recirculating flows. *Applied Mathematical Modelling*, **2003**, 27, 717-732	4.5	1
37	Heat Transfer in Cavities Having a Fixed Amount of Solid Material **2005**, 311		1

36	Natural Convection in Turbulent Regime in Concentric and Eccentric Horizontal Annular Regions **2002**,		1
35	A coupled surface-subsurface model of overbank flood flow and air entrapment in a permeable floodplain **2014**, 591-596		1
34	Filtration efficiency of particle-laden flows for thermal plug and abandonment of oil wells using turbulence modeling in porous media. *International Communications in Heat and Mass Transfer*, **2022**, 135, 106108	5.8	1
33	Turbulent Natural Convection in Horizontal Composite Cavities **2003**, 113		0
32	Pressure Drop Characteristics of Parallel-Plate Channel Flow With Porous Obstructions at Both Walls **2003**, 291		0
31	Turbulent Impinging Jet Into a Confined Porous Layer **2005**, 673		0
30	Turbulent Heat Transfer in Channels With Solid and Porous Baffles **2005**, 609		0
29	Heat Transfer in a Suddenly Expanded Turbulent Flow Past a Porous Insert Using Linear and Non-Linear Eddy-Viscosity Models **2002**, 145		0
28	Heterogeneous Media. *SpringerBriefs in Applied Sciences and Technology*, **2016**, 1-7	0.4	0
27	Discharge effectiveness of thermal energy storage systems. *Applied Thermal Engineering*, **2022**, 209, 118232	5.8	0
26	Turbulence structure and heat transfer in a sudden expansion with a porous insert using linear and non-linear turbulence models. *International Journal of Thermal Sciences*, **2019**, 141, 1-13	4.1	
25	Modeling of Thermal Non-equilibrium. *SpringerBriefs in Applied Sciences and Technology*, **2016**, 9-41	0.4	
24	Double averaging methodology and double-decomposition: description of intermediate scales between a fluid particle and a catchment. *Hydrological Processes*, **2014**, 28, 3356-3360	3.3	
23	A Thermo-Mechanical Model for a Counterflow Biomass Gasifier. *Defect and Diffusion Forum*, **2014**, 354, 227-235	0.7	
22	Turbulent Mass Transport **2012**, 91-111		
21	Turbulent Double Diffusion **2012**, 113-120		
20	Turbulent Combustion **2012**, 121-132		
19	Turbulent Momentum Transport **2012**, 33-53		

18	Comparison of Four Thermo-Mechanical Models for Simulating Reactive Flow in Porous Materials. *Defect and Diffusion Forum*, **2010**, 297-301, 1493-1501	0.7
17	Numerical Modeling and Algorithms **2012**, 143-198	
16	Interfacial Heat Transport in Highly Permeable Media: A Finite Volume Approach1-30	
15	Computation of Turbulent Free Convection in Oblique Porous Enclosures Using a Macroscopic Two-Equation Model **2007**, 1499	
14	Turbulent Free Convection in a Composite Enclosure **2003**, 749	
13	Computation of Turbulent Free Convection in Oblique Porous Enclosures Using a Macroscopic Two-Equation Model **2004**, 241	
12	Turbulent Heat Transfer in a Backward-Facing Step Flow Using a Non-Linear k-Model **2002**, 315	
11	Laminar Free Convection in Inclined Enclosures Filled With a Fluid Saturated Porous Medium **2004**, 569	
10	Turbulent Natural Convection in Enclosures With Clear Fluid and Completely Filled With Porous Material **2002**, 155	
9	Double Diffusion. *SpringerBriefs in Applied Sciences and Technology*, **2016**, 89-105	0.4
8	Combustion Systems. *SpringerBriefs in Applied Sciences and Technology*, **2016**, 69-88	0.4
7	Moving Systems. *SpringerBriefs in Applied Sciences and Technology*, **2016**, 43-68	0.4
6	Heat Transfer Using the Local Thermal Non-Equilibrium Model. *SpringerBriefs in Applied Sciences and Technology*, **2012**, 55-73	0.4
5	Heat Transfer Using the Local Thermal Equilibrium Model. *SpringerBriefs in Applied Sciences and Technology*, **2012**, 37-53	0.4
4	Flow Structure of Impinging Jets. *SpringerBriefs in Applied Sciences and Technology*, **2012**, 21-35	0.4
3	The Double-Decomposition Concept **2012**, 27-32	
2	Concluding Remarks and Future Work. *SpringerBriefs in Applied Sciences and Technology*, **2012**, 75-76	0.4
1	Mathematical Modeling of Turbulence in Porous Media. *SpringerBriefs in Applied Sciences and Technology*, **2012**, 7-19	0.4