Gian Luca Morini

List of Publications by Year
in descending order

141 papers	3,261 citations	159585 30 h-index	175258 52 g-index
145 all docs	145 docs citations	145 times ranked	2060 citing authors

#	Article	IF	Citations
1	The evaluation of the effective thermal conductivity of metal-foam loaded phase change materials. Journal of Energy Storage, 2022, 51, 104450.	8.1	14
2	Experimental measurements of thermalâ€“hydraulic performance of aluminum-foam water-to-air heat exchangers for a HVAC application. Applied Thermal Engineering, 2022, 213, 118716.	6.0	2
3	Experimental Investigation on Latent Thermal Energy Storages (LTESs) Based on Pure and Copper-Foam-Loaded PCMs. Energies, 2022, 15, 4894.	3.1	4
4	Toward a Compact Wireless Surface Acoustic Wave Pirani Microsensor with Extended Range and Sensitivity. Heat Transfer Engineering, 2021, 42, 565-578.	1.9	4
5	Effect of aspect ratio and inlet manifold shape on the laminar-to-turbulent transition of gas flow in rectangular microchannels. Experiments in Fluids, 2021, 62, 1.	2.4	3
6	Influence of sizing strategy and control rules on the energy saving potential of heat pump hybrid systems in a residential building. Energy Conversion and Management, 2021, 235, 114022.	9.2	32
7	Numerical modelling of droplet formation in a micro cross-junction. , 2021, , .		0
8	Editorial for the Special Issue â€œSelected Papers from the ISTEGIMâ€™19â€”Thermal Effects in Gas Flow in Microscaleâ€• Micromachines, 2020, 11, 879.	2.9	0
9	The Role of Emitters, Heat Pump Size, and Building Massive Envelope Elements on the Seasonal Energy Performance of Heat Pump-Based Heating Systems. Energies, 2020, 13, 5098.	3.1	9
10	Generation of Newtonian droplets in Newtonian and non-Newtonian carrier flows in micro T-junctions under opposed-flow configuration. Journal of Non-Newtonian Fluid Mechanics, 2020, 281, 104297.	2.4	2
11	Microfluidic water-assisted trap focusing method for ultra-large volume injection in reversed-phase nano-liquid chromatography coupled to electron ionization tandem-mass spectrometry. Journal of Chromatography A, 2020, 1627, 461421.	3.7	5
12	Experimental validation of a two equation RANS transitional turbulence model for compressible microflows. International Journal of Heat and Fluid Flow, 2020, 86, 108711.	2.4	2
13	Numerical and Experimental Study of Microchannel Performance on Flow Maldistribution. Micromachines, 2020, 11, 323.	2.9	10
14	A Hybrid Numerical Methodology Based on CFD and Porous Medium for Thermal Performance Evaluation of Gas to Gas Micro Heat Exchanger. Micromachines, 2020, 11, 218.	2.9	7
15	Experimental Investigation on the Pressure Drop of Air Flows Through Aluminum and Nickel-Chromium Metallic Foams for HVAC Applications. Energies, 2020, 13, 172.	3.1	7
16	Average Friction Factor for Laminar Gas Flow in Microtubes. CFD Letters, 2020, 12, 22-30.	0.8	10
17	On-off cycling losses of reversible air-to-water heat pump systems as a function of the unit power modulation capacity. Energy Conversion and Management, 2019, 196, 966-978.	9.2	43
18	The modelling of reverse defrosting cycles of air-to-water heat pumps with TRNSYS. E3S Web of Conferences, 2019, 111, 01063.	0.5	2

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19	Effects of the room temperature sensor position and radiator sizing on indoor thermal comfort and energy performances. E3S Web of Conferences, 2019, 111, 01006.	0.5	1
20	BESTEST and EN ISO 52016 Benchmarking of ALMABuild, a New Open-Source Simulink Tool for Dynamic Energy Modelling of Buildings. Energies, 2019, 12, 2938.	3.1	13
21	Experimental characterization of a micro cross-junction as generator of Newtonian and non-Newtonian droplets in silicone oil flow at low Capillary numbers. Experimental Thermal and Fluid Science, 2019, 103, 191-200.	2.7	25
22	Design and Simulation of a Wireless SAWâ€“Pirani Sensor with Extended Range and Sensitivity. Sensors, 2019, 19, 2421.	3.8	7
23	A Comparison of Data Reduction Methods for Average Friction Factor Calculation of Adiabatic Gas Flows in Microchannels. Micromachines, 2019, 10, 171.	2.9	13
24	Numerical investigation of the influence of heat emitters on the local thermal comfort in a room. Building Simulation, 2019, 12, 395-410.	5.6	13
25	Thermal conductivity measurement of insulating innovative building materials by hot plate and heat flow meter devices: A Round Robin Test. International Journal of Thermal Sciences, 2019, 139, 25-35.	4.9	36
26	ALMABuild as a design tool for the analysis of the effect of the occupant behaviour on the energy building consumptions. AIP Conference Proceedings, 2019, , .	0.4	0
27	On the influence of hydronic distribution loop on energy performance and indoor thermal comfort for air-to-water heat pump systems in residential buildings. AIP Conference Proceedings, 2019, , .	0.4	2
28	Data reduction of average friction factor of gas flow through adiabatic micro-channels. International Journal of Heat and Mass Transfer, 2019, 129, 427-431.	4.8	13
29	The Challenge to Measure Single-phase Convective Heat Transfer Coefficients in Microchannels. Heat Transfer Engineering, 2019, 40, 695-710.	1.9	4
30	Generation of Newtonian and non-Newtonian droplets in silicone oil flow by means of a micro cross-junction. International Journal of Multiphase Flow, 2018, 105, 202-216.	3.4	27
31	On the role of axial wall conduction in mini/micro counterflow heat exchangers. International Journal of Heat and Mass Transfer, 2018, 116, 840-857.	4.8	8
32	Corrigendum to â€œShear work contribution to convective heat transfer of dilute gases in slip flow regimeâ€ [Eur. J. Mech. B Fluids 64 (2017) 60â€“68]. European Journal of Mechanics, B/Fluids, 2018, 72, 467-470.	2.5	0
33	Dynamic modelling and energy performance analysis of an innovative dual-source heat pump system. Applied Thermal Engineering, 2018, 142, 745-759.	6.0	50
34	THE DESIGN OF MINI/MICRO HEAT EXCHANGERS: A WORLD OF OPPORTUNITIES AND CONSTRAINTS. , 2018, , .		1
35	Planned energy-efficient retrofitting of a residential building in Italy. Future Cities and Environment, 2017, 1, 3.	1.6	1
36	Experimental characterization of a silicone oil-in-water droplet generator based on a micro T-junction. Journal of Physics: Conference Series, 2017, 796, 012039.	0.4	1

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37	Sizing effects on the energy performance of reversible air-source heat pumps for office buildings. Applied Thermal Engineering, 2017, 114, 1073-1081.	6.0	38
38	Shear work contribution to convective heat transfer of dilute gases in slip flow regime. European Journal of Mechanics, B/Fluids, 2017, 64, 60-68.	2.5	10
39	Micro Droplets of non-Newtonian Solutions in Silicone Oil Flow through a Hydrophobic Micro Cross-Junction. Journal of Physics: Conference Series, 2017, 923, 012021.	0.4	4
40	Laminar counterflow parallel-plate heat exchangers: An exact solution including axial and transverse wall conduction effects. International Journal of Heat and Mass Transfer, 2017, 104, 1229-1245.	4.8	9
41	Energy Performance Assessment of the Heating System Refurbishment on a School Building in Modena, Italy. Energy Procedia, 2016, 101, 948-955.	1.8	6
42	Convective Heat Transfer in Elliptical Microchannels Under Slip Flow Regime and H1 Boundary Conditions. Journal of Heat Transfer, 2016, 138, .	2.1	12
43	Sensitivity to shear stress of non-encapsulated thermochromic liquid crystal (TLC) particles for microfluidic applications. Microfluidics and Nanofluidics, 2016, 20, 1.	2.2	3
44	Preliminary Energy Audit of the Historical Building of the School of Engineering and Architecture of Bologna. Energy Procedia, 2015, 81, 64-73.	1.8	12
45	Annual Performances of Reversible Air Source Heat Pumps for Space Conditioning. Energy Procedia, 2015, 78, 1123-1128.	1.8	13
46	Determination of droplet contours in liquid-liquid flows within microchannels. Journal of Physics: Conference Series, 2015, 655, 012028.	0.4	3
47	Summer Performances of Reversible Air-to-water Heat Pumps with Heat Recovery for Domestic Hot Water Production. Energy Procedia, 2015, 78, 1117-1122.	1.8	11
48	Dynamic Simulation of Solar Thermal Collectors for Domestic Hot Water Production. Energy Procedia, 2015, 82, 630-636.	1.8	25
49	Climate Influence on Seasonal Performances of Air-to-water Heat Pumps for Heating. Energy Procedia, 2015, 81, 100-107.	1.8	19
50	Dynamic Simulation of Outdoor Swimming Pool Solar Heating. Energy Procedia, 2015, 81, 1-10.	1.8	15
51	Effects of Fabrication Imperfections on Fully Developed Flow in Rectangular Micro-Channels. , 2015, , .		1
52	Flow patterns of an airâ€“water mixture at the exit of a micro T-junction. Experimental Thermal and Fluid Science, 2015, 67, 62-69.	2.7	11
53	Selected papers from the 3rd European Conference on Microfluidics: ÂµFluâ€™12. Microsystem Technologies, 2015, 21, 497-498.	2.0	0
54	Seasonal performance evaluation of electric air-to-water heat pump systems. Applied Thermal Engineering, 2015, 90, 1072-1081.	6.0	64

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55	The Effect on the Nusselt Number of the Nonlinear Axial Temperature Distribution of Gas Flows Through Microtubes. Heat Transfer Engineering, 2014, 35, 159-170.	1.9	18
56	Design and Experimental Investigation of a Gas-to-Gas Counter-Flow Micro Heat Exchanger. Experimental Heat Transfer, 2014, 27, 340-359.	3.2	17
57	Selected papers from the 3rdEuropean Conference on Microfluidics - Î¼Flu'12. Experimental Heat Transfer, 2014, 27, 313-315.	3.2	0
58	Numerical Investigation of Viscous Dissipation in Elliptic Microducts. Journal of Physics: Conference Series, 2014, 547, 012023.	0.4	4
59	Energy Audit of an Industrial Site: A Case Study. Energy Procedia, 2014, 45, 424-433.	1.8	44
60	Influence of Outdoor Air Conditions on the Air Source Heat Pumps Performance. Energy Procedia, 2014, 45, 653-662.	1.8	52
61	A method for the choice of the optimal balance-point temperature of air-to-water heat pumps for heating. Sustainable Cities and Society, 2014, 12, 85-91.	10.4	16
62	Experimental analysis of the influence of wall axial conduction on gas-to-gas micro heat exchanger effectiveness. International Journal of Heat and Mass Transfer, 2014, 69, 17-25.	4.8	27
63	Experimental analysis of the summer thermal performances of a naturally ventilated rainscreen faÃ§ade building. Energy and Buildings, 2014, 72, 280-287.	6.7	42
64	Wall conduction effects in laminar counterflow parallel-plate heat exchangers. International Journal of Heat and Mass Transfer, 2014, 70, 939-953.	4.8	12
65	Dilute gas flows through elliptic microchannels under H2 boundary conditions. International Journal of Heat and Mass Transfer, 2014, 71, 376-385.	4.8	18
66	Conductive heat transfer in a rarefied polyatomic gas confined between coaxial cylinders. International Journal of Heat and Mass Transfer, 2014, 79, 378-389.	4.8	22
67	Experimental and numerical investigation of forced convection of subsonic gas flows in microtubes. International Journal of Heat and Mass Transfer, 2014, 78, 732-740.	4.8	6
68	Selected papers from the third European Conference on Microfluidics: ÂµFluâ€™12. Microfluidics and Nanofluidics, 2014, 16, 997-998.	2.2	0
69	Experimental Determination of the 2D Velocity Laminar Profile in Glass Microchannels using Î¼PIV. Energy Procedia, 2014, 45, 538-547.	1.8	11
70	Check-in and Control Activities on the Energy Performance Certificates in Emilia-Romagna (Italy). Energy Procedia, 2014, 45, 434-442.	1.8	4
71	Electro-osmotic flows inside triangular microchannels. Journal of Physics: Conference Series, 2014, 501, 012026.	0.4	5
72	Use of the Î¼PIV technique for an indirect determination of the microchannel cross-section passage geometry. Journal of Physics: Conference Series, 2014, 501, 012027.	0.4	2

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73	Experimental Analysis of Gas Forced Convective Heat Transfer in Microtubes under H and T Thermal Boundary Conditions. , 2014, , .		0
74	Electro-osmotic heat transfer in elliptical microchannels under H1 boundary condition. International Journal of Thermal Sciences, 2013, 72, 92-101.	4.9	18
75	Experimental Investigation on Thermal Performance of Gas-to-Gas Micro Heat Exchanger With Three Flow Arrangements. , 2013, , .		1
76	Guidelines for the Determination of Single-Phase Forced Convection Coefficients in Microchannels. Journal of Heat Transfer, 2013, 135, .	2.1	24
77	Viscous Dissipation. , 2013, , 1-15.		5
78	Numerical analysis of electro-osmotic flows through elliptic microchannels. Houille Blanche, 2013, 99, 42-49.	0.3	4
79	Pressure-Driven Single-Phase Liquid Flows. , 2013, , 1-23.		0
80	Viscous Heating. , 2013, , 1-11.		0
81	Experimental analysis of heat transfer between a heated wire and a rarefied gas in an annular gap with high diameter ratio. Journal of Physics: Conference Series, 2012, 362, 012028.	0.4	5
82	Experimental Analysis of Gas Micro-Convection Through Commercial Microtubes. Experimental Heat Transfer, 2012, 25, 151-171.	3.2	25
83	The Rules of Single-Phase Forced Convection in Microchannels. , 2012, , .		3
84	Transitional and Turbulent Convective Heat Transfer of Compressible Gas Flows Through Microtubes. , 2012, , .		0
85	Hydraulic and thermal design of a gas microchannel heat exchanger. Journal of Physics: Conference Series, 2012, 362, 012023.	0.4	10
86	Experimental analysis of heat conduction in a high diameter ratio annular gap filled with a rarefied gas. Journal of Physics: Conference Series, 2012, 395, 012020.	0.4	0
87	Effects of the channel geometry and of the fluid composition on the performances of DC electro-osmotic pumps. International Journal of Thermal Sciences, 2012, 55, 114-121.	4.9	13
88	Selected papers from the 2nd European conference on microfluidics: Î¼Fluâ€™10. Microsystem Technologies, 2012, 18, 149-150.	2.0	0
89	Experimental Analysis of Gas Flow Forced Convection in Microtubes. , 2011, , .		0
90	Empirical validation and modelling of a naturally ventilated rainscreen faÃ§ade building. Energy and Buildings, 2011, 43, 853-863.	6.7	61

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91	A critical review of the measurement techniques for the analysis of gas microflows through microchannels. Experimental Thermal and Fluid Science, 2011, 35, 849-865.	2.7	53
92	Exact solution for the conjugate fluidâ€“fluid problem in the thermal entrance region of laminar counterflow heat exchangers. International Journal of Heat and Mass Transfer, 2011, 54, 490-499.	4.8	17
93	Single-Phase Laminar Forced Convection in Microchannels With Rounded Corners. Heat Transfer Engineering, 2011, 32, 1108-1116.	1.9	18
94	NUMERICAL ANALYSIS OF CHANNEL GEOMETRY AND FLUID BULK COMPOSITION INFLUENCE ON THE PERFORMANCE OF DC ELECTRO-OSMOTIC MICRO AND NANO PUMPS. , 2011, , .		0
95	Laminar, transitional and turbulent friction factors for gas flows in smooth and rough microtubes. International Journal of Thermal Sciences, 2010, 49, 248-255.	4.9	33
96	Laminar counterflow parallel-plate heat exchangers: Exact and approximate solutions. International Journal of Heat and Mass Transfer, 2010, 53, 4885-4898.	4.8	34
97	Analysis of laminar-to-turbulent transition for isothermal gas flows in microchannels. Microfluidics and Nanofluidics, 2009, 7, 181-190.	2.2	24
98	Friction factor in micropipe gas flow under laminar, transition and turbulent flow regime. International Journal of Heat and Fluid Flow, 2009, 30, 814-822.	2.4	28
99	Uncertainty assessment in friction factor measurements as a tool to design experimental set-ups. International Journal of Thermal Sciences, 2009, 48, 282-289.	4.9	19
100	Experimental Analysis of Microconvective Heat Transfer in the Laminar and Transitional Regions. Experimental Heat Transfer, 2009, 23, 73-93.	3.2	23
101	The simulation of transients in thermal plant. Part II: Applications. Applied Thermal Engineering, 2008, 28, 244-251.	6.0	13
102	Experimental uncertainties analysis as a tool for friction factor determination in microchannels. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2008, 222, 817-827.	2.1	3
103	Laminar, Transitional and Turbulent Friction Factors for Gas Flows in Smooth and Rough Microtubes. , 2008, , .		4
104	The Role of the Viscous Dissipation in Heated Microchannels. Journal of Heat Transfer, 2007, 129, 308-318.	2.1	62
105	Low-Frequency Instabilities in the Operation of Metallic Multi-Microchannel Evaporators. Heat Transfer Engineering, 2007, 28, 834-841.	1.9	18
106	A Life Cycle Analysis of roof integrated photovoltaic systems. International Journal of Environmental Technology and Management, 2007, 7, 134.	0.2	12
107	Experimental Analysis of Pressure Drop and Laminar to Turbulent Transition for Gas Flows in Smooth Microtubes. Heat Transfer Engineering, 2007, 28, 670-679.	1.9	45
108	Assessing Uncertainties in Friction Factor Measurement as a Tool in Devising Experimental Set-Ups. , 2007, , .		0

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109	The simulation of transients in thermal plant. Part I: Mathematical model. Applied Thermal Engineering, 2007, 27, 2138-2144.	6.0	22
110	Influence of Concentration and Number of Image Pairs in Î¼-PIV Experiments. , 2007, , .		1
111	Scaling Effects for Liquid Flows in Microchannels. Heat Transfer Engineering, 2006, 27, 64-73.	1.9	110
112	Optimization of Metallic Multi-Microchannel Array Evaporators. , 2006, , 1165.		0
113	Experimental Analysis of Laminar-to-Turbulent Transition for Gas Flows in Smooth Microtubes. , 2006, , 419.		0
114	Experimental Investigation of the Compressibility Effects on the Friction Factor of Gas Flows in Microtubes. , 2006, , 411.		5
115	Thermal performance of silicon micro heat-sinks with electrokinetically-driven flows. International Journal of Thermal Sciences, 2006, 45, 955-961.	4.9	26
116	Friction characteristics of compressible gas flows in microtubes. Experimental Thermal and Fluid Science, 2006, 30, 733-744.	2.7	41
117	New technologies for an effective energy retrofit of hospitals. Applied Thermal Engineering, 2006, 26, 161-169.	6.0	55
118	Using viscous heating to determine the friction factor in microchannels â€“ An experimental validation. Experimental Thermal and Fluid Science, 2006, 30, 725-731.	2.7	55
119	Convection forcÃ©e de liquides en rÃ©gime laminaire dans des micro-canaux en silicium. Houille Blanche, 2006, 92, 20-25.	0.3	2
120	Viscous heating in liquid flows in micro-channels. International Journal of Heat and Mass Transfer, 2005, 48, 3637-3647.	4.8	160
121	A criterion for experimental validation of slip-flow models for incompressible rarefied gases through microchannels. Microfluidics and Nanofluidics, 2005, 1, 190-196.	2.2	42
122	Viscous Dissipation as Scaling Effect for Liquid Flows in Microchannels (Keynote). , 2005, , 93.		9
123	The rarefaction effect on the friction factor of gas flow in microchannels. Superlattices and Microstructures, 2004, 35, 587-599.	3.1	108
124	Single-phase convective heat transfer in microchannels: a review of experimental results. International Journal of Thermal Sciences, 2004, 43, 631-651.	4.9	585
125	Greenhouse gas reduction and primary energy savings via adoption of a fuel cell hybrid plant in a hospital. Applied Thermal Engineering, 2004, 24, 383-400.	6.0	37
126	LAMINAR-TO-TURBULENT FLOW TRANSITION IN MICROCHANNELS. Microscale Thermophysical Engineering, 2004, 8, 15-30.	1.2	63

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127	Laminar Liquid Flow Through Silicon Microchannels. Journal of Fluids Engineering, Transactions of the ASME, 2004, 126, 485-489.	1.5	42
128	Transient laminar natural convection along rectangular ducts. International Journal of Heat and Mass Transfer, 2001, 44, 4703-4710.	4.8	9
129	Analytical determination of the temperature distribution and Nusselt numbers in rectangular ducts with constant axial heat flux. International Journal of Heat and Mass Transfer, 2000, 43, 741-755.	4.8	58
130	Nusselt Numbers in Rectangular Ducts With Laminar Viscous Dissipation. Journal of Heat Transfer, 1999, 121, 1083-1087.	2.1	18
131	Thermal characteristics of slug flow in rectangular ducts. International Journal of Thermal Sciences, 1999, 38, 148-159.	4.9	6
132	Transient response of non-thermal equilibrium packed beds. International Journal of Engineering Science, 1999, 37, 179-188.	5.0	14
133	The developing Nusselt numbers for slug flow in rectangular ducts. International Journal of Heat and Mass Transfer, 1998, 41, 2799-2807.	4.8	6
134	Laminar viscous dissipation in rectangular ducts. International Communications in Heat and Mass Transfer, 1998, 25, 551-560.	5.6	12
135	SLIP FLOW IN RECTANGULAR MICROTUBES. Microscale Thermophysical Engineering, 1998, 2, 273-282.	1.2	63
136	The Thermal Entrance Length Problem for Slug Flow in Rectangular Ducts. Journal of Heat Transfer, 1996, 118, 979-982.	2.1	5
137	Nusselt numbers in laminar flow for H2 boundary conditions. International Journal of Heat and Mass Transfer, 1996, 39, 1165-1174.	4.8	53
138	Laminar heat transfer between parallel plates as the limiting solution for the rectangular duct. International Communications in Heat and Mass Transfer, 1996, 23, 555-562.	5.6	9
139	Advances in Propylene Polymerization with MgCl2 Supported Catalysts. , 1995, , 413-425.		26
140	Numerical analysis of compact air condensers. Heat Recovery Systems & CHP, 1994, 14, 535-547.	0.3	0
141	A symmetric solution for velocity profile in laminar flow through rectangular ducts. International Communications in Heat and Mass Transfer, 1994, 21, 469-475.	5.6	113