

# Marcelo Colaco

## List of Publications by Year in descending order

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77  
papers

1,177  
citations

471061

17  
h-index

476904

29  
g-index

94  
all docs

94  
docs citations

94  
times ranked

831  
citing authors

#	ARTICLE	IF	CITATIONS
1	An Eulerian-Lagrangean integral transform technique for solving advective-diffusive problems. <i>International Communications in Heat and Mass Transfer</i> , 2022, 133, 105976.	2.9	1
2	Characterisation of the heat transfer in displaced enhancement devices by means of inverse problem approach applied to IR images. <i>Quantitative InfraRed Thermography Journal</i> , 2021, 18, 108-126.	2.1	5
3	Estimation of Thermal Contact Conductances on Irregular Interfaces Using the Generalized Integral Transform Technique and the Reciprocity Functional Method. <i>International Journal of Computational Methods</i> , 2021, 18, 2050037.	0.8	0
4	A comparative study of gradient-based and meta-heuristic optimization methods using Griewank benchmark function/ Um estudo comparativo de métodos de otimização baseados em gradientes e meta-heurísticos usando a função de benchmark do Griewank. <i>Brazilian Journal of Development</i> , 2021, 7, 55341-55350.	0.0	1
5	Computational model of silica nanoparticle penetration into tumor spheroids: Effects of methoxy and carboxy PEG surface functionalization and hyperthermia. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2021, 37, e3504.	1.0	3
6	Numerical investigation for steam tubes temperature reduction in a four fuels tangentially fired boiler. <i>Applied Thermal Engineering</i> , 2020, 179, 115656.	3.0	7
7	Real-time temperature estimation with enhanced spatial resolution during MR-guided hyperthermia therapy. <i>Numerical Heat Transfer; Part A: Applications</i> , 2020, 77, 782-806.	1.2	9
8	Internal heat transfer coefficient estimation in three-dimensional ducts through the reciprocity functional approach – An analytical approach and validation with experimental data. <i>International Journal of Heat and Mass Transfer</i> , 2018, 122, 587-601.	2.5	4
9	Application of nonlinear multivariable model predictive control to transient operation of a gas turbine and NOX emissions reduction. <i>Energy</i> , 2018, 149, 341-353.	4.5	25
10	State estimation problems in PRF-shift magnetic resonance thermometry. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2018, 28, 315-335.	1.6	2
11	Filtered reciprocity functional approach to estimate internal heat transfer coefficients in 2D cylindrical domains using infrared thermography. <i>International Journal of Heat and Mass Transfer</i> , 2018, 125, 1181-1195.	2.5	12
12	An extension of the reciprocity functional approach to the estimate of two-dimensional spatially dependent thermal contact conductances using regularization via TSVD: numerical and experimental results. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2018, 40, 1.	0.8	1
13	Detection of contact failures with the Markov chain Monte Carlo method by using integral transformed measurements. <i>International Journal of Thermal Sciences</i> , 2018, 132, 486-497.	2.6	10
14	Nonlinear Model Predictive Control applied to Transient Operation of a Gas Turbine. <i>Journal of Sustainable Development of Energy, Water and Environment Systems</i> , 2018, 6, 770-783.	0.9	8
15	Knocking prediction in internal combustion engines via thermodynamic modeling: preliminary results and comparison with experimental data. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2017, 39, 321-327.	0.8	7
16	Self-organizing maps for pattern recognition in design of alloys. <i>Materials and Manufacturing Processes</i> , 2017, 32, 1067-1074.	2.7	8
17	Estimating gasoline performance in internal combustion engines with simulation metamodels. <i>Fuel</i> , 2017, 193, 230-240.	3.4	8
18	Bayesian estimate of pre-mixed and diffusive rate of heat release phases in marine diesel engines. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2017, 39, 1835-1844.	0.8	12

#	ARTICLE	IF	CITATIONS
19	Multi-Objective Optimization of Micro Pin-Fin Arrays for Cooling of High Heat Flux Electronics with a Hot Spot. <i>Heat Transfer Engineering</i> , 2017, 38, 1235-1246.	1.2	27
20	Inverse determination of spatially varying material coefficients in solid objects. <i>Journal of Inverse and Ill-Posed Problems</i> , 2016, 24, 181-194.	0.5	8
21	Algorithms for design optimization of chemistry of hard magnetic alloys using experimental data. <i>Journal of Alloys and Compounds</i> , 2016, 682, 454-467.	2.8	28
22	An analytical method to estimate spatially-varying thermal contact conductances using the reciprocity functional and the integral transform methods: Theory and experimental validation. <i>International Journal of Heat and Mass Transfer</i> , 2016, 100, 599-607.	2.5	10
23	Real-time identification of a high-magnitude boundary heat flux on a plate. <i>Inverse Problems in Science and Engineering</i> , 2016, 24, 1661-1679.	1.2	14
24	Thermography detection of contact failures in double layered materials using the reciprocity functional approach. <i>Applied Thermal Engineering</i> , 2016, 100, 1173-1178.	3.0	14
25	Multi-Objective Optimization of Micro Pin-Fin Arrays for Cooling of High Heat Flux Electronics With a Hot Spot. , 2015, , .		2
26	The reciprocity function approach applied to the non-intrusive estimation of spatially varying internal heat transfer coefficients in ducts: numerical and experimental results. <i>International Journal of Heat and Mass Transfer</i> , 2015, 90, 1221-1231.	2.5	15
27	Transient non-intrusive method for estimating spatial thermal contact conductance by means of the reciprocity functional approach and the method of fundamental solutions. <i>Inverse Problems in Science and Engineering</i> , 2015, 23, 688-717.	1.2	12
28	Estimation of a Location- and Time-Dependent High-Magnitude Heat Flux in a Heat Conduction Problem Using the Kalman Filter and the Approximation Error Model. <i>Numerical Heat Transfer; Part A: Applications</i> , 2015, 68, 1198-1219.	1.2	11
29	A Backward Reciprocity Function Approach to the Estimation of Spatial and Transient Thermal Contact Conductance in Double-Layered Materials Using Non-Intrusive Measurements. <i>Numerical Heat Transfer; Part A: Applications</i> , 2015, 68, 117-132.	1.2	13
30	Hybrid Optimization Algorithms and Hybrid Response Surfaces. <i>Computational Methods in Applied Sciences (Springer)</i> , 2015, , 19-47.	0.1	6
31	Heat transfer coefficient estimation of an internal combustion engine using particle filters. <i>Inverse Problems in Science and Engineering</i> , 2014, 22, 483-506.	1.2	9
32	Inverse determination of blood perfusion coefficient by using different deterministic and heuristic techniques. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2014, 36, 193-206.	0.8	10
33	Accelerated Bayesian Inference for the Estimation of Spatially Varying Heat Flux in a Heat Conduction Problem. <i>Numerical Heat Transfer; Part A: Applications</i> , 2014, 65, 1-25.	1.2	37
34	Application of the generalized Polynomial Chaos expansion to the simulation of an internal combustion engine with uncertainties. <i>Fuel</i> , 2014, 134, 358-367.	3.4	5
35	RADIAL BASIS FUNCTION APPLIED TO THE SOLUTION OF MHD FLOW IN A TILTED CAVITY. <i>Computational Thermal Sciences</i> , 2014, 6, 461-476.	0.5	1
36	Response surface method applied to the thermoeconomic optimization of a complex cogeneration system modeled in a process simulator. <i>Energy</i> , 2013, 52, 44-54.	4.5	19

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37	A fast non-intrusive method for estimating spatial thermal contact conductance by means of the reciprocity functional approach and the method of fundamental solutions. International Journal of Heat and Mass Transfer, 2013, 60, 653-663.	2.5	29
38	Fast Bayesian inference for an inverse heat transfer problem using approximations. , 2012, , .		4
39	Application of Two Bayesian Filters to Estimate Unknown Heat Fluxes in a Natural Convection Problem. Journal of Heat Transfer, 2012, 134, .	1.2	8
40	Computer Simulation of a Flex-Fuel Engine Running on Different Gasoline-Hydrous Ethanol Blends. , 2012, , .		1
41	STATE ESTIMATION PROBLEMS IN HEAT TRANSFER. , 2012, 2, 239-258.		24
42	Hydrous ethanolâ€“gasoline blends â€“ Combustion and emission investigations on a Flex-Fuel engine. Fuel, 2012, 97, 796-804.	3.4	133
43	Inverse Problems in Aerodynamics, Heat Transfer, Elasticity and Materials Design. International Journal of Aeronautical and Space Sciences, 2012, 13, 405-420.	1.0	12
44	Stress Corrosion Cracking Resistant Aluminum Alloys: Optimizing Concentrations of Alloying Elements and Tempering. Materials and Manufacturing Processes, 2011, 26, 363-374.	2.7	20
45	Application of a Bayesian Filter to Estimate Unknown Heat Fluxes in a Natural Convection Problem. , 2011, , .		3
46	Thermal analysis of a diesel engine operating with dieselâ€“biodiesel blends. Fuel, 2010, 89, 3742-3752.	3.4	17
47	Thermodynamic simulation and optimization of diesel engines operating with diesel and biodiesel blends using experimental data. Inverse Problems in Science and Engineering, 2010, 18, 787-812.	1.2	13
48	Magnetohydrodynamic simulations using radial basis functions. International Journal of Heat and Mass Transfer, 2009, 52, 5932-5939.	2.5	19
49	Single and Multi-Objective Optimization of a Cogeneration System Using Hybrid Algorithms. Heat Transfer Engineering, 2009, 30, 261-271.	1.2	6
50	A Hybrid RBF Based Method for Highly Multidimensional Response Surfaces Using Scarce Data Sets. , 2008, , .		2
51	A response surface method-based hybrid optimizer. Inverse Problems in Science and Engineering, 2008, 16, 717-741.	1.2	29
52	Optimizing chemistry of bulk metallic glasses for improved thermal stability. Modelling and Simulation in Materials Science and Engineering, 2008, 16, 075010.	0.8	19
53	Recovering the source term in a linear diffusion problem by the method of fundamental solutions. Inverse Problems in Science and Engineering, 2008, 16, 1005-1021.	1.2	32
54	Estimation of the heat transfer coefficient by means of the method of fundamental solutions. Inverse Problems in Science and Engineering, 2008, 16, 777-795.	1.2	10

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55	Approximation of the likelihood function in the Bayesian technique for the solution of inverse problems. <i>Inverse Problems in Science and Engineering</i> , 2008, 16, 677-692.	1.2	42
56	Identification of Parameters in a System of Differential Equations Modeling Evolution of Infectious Diseases. , 2008, , .		4
57	Identification and design of source term in a two-region heat conduction problem. <i>Inverse Problems in Science and Engineering</i> , 2007, 15, 661-677.	1.2	3
58	Solidification of Double-Diffusive Flows Using Thermo-Magneto-Hydrodynamics and Optimization. <i>Materials and Manufacturing Processes</i> , 2007, 22, 594-606.	2.7	16
59	Inverse and optimization problems in heat transfer. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2006, 28, 1-24.	0.8	118
60	A multilevel hybrid optimization of magnetohydrodynamic problems in double-diffusive fluid flow. <i>Journal of Physics and Chemistry of Solids</i> , 2006, 67, 1965-1972.	1.9	8
61	Coupled conduction&#x2014;radiation in semi-transparent materials at high temperatures. <i>Journal of Physics and Chemistry of Solids</i> , 2006, 67, 2230-2240.	1.9	12
62	Convective Heat Transfer Control Using Magnetic and Electric Fields. <i>Journal of Enhanced Heat Transfer</i> , 2006, 13, 139-155.	0.5	16
63	IDENTIFICATION OF THE THERMOPHYSICAL PROPERTIES OF SEMI-TRANSPARENT MATERIALS. , 2006, , .		0
64	Control of Unsteady Solidification Via Optimized Magnetic Fields. <i>Materials and Manufacturing Processes</i> , 2005, 20, 435-458.	2.7	16
65	Inverse natural convection problem of simultaneous estimation of two boundary heat fluxes in irregular cavities. <i>International Journal of Heat and Mass Transfer</i> , 2004, 47, 1201-1215.	2.5	36
66	Optimization of Wall Electrodes for Electro-Hydrodynamic Control of Natural Convection during Solidification. <i>Materials and Manufacturing Processes</i> , 2004, 19, 719-736.	2.7	15
67	Optimization of Intensities and Orientations of Magnets Controlling Melt Flow During Solidification. <i>Materials and Manufacturing Processes</i> , 2004, 19, 695-718.	2.7	18
68	Optimization of Wall Electrodes for Electro-Hydrodynamic Control of Natural Convection Effects During Solidification. , 2003, , 1.		5
69	A Comparison of Two Solution Techniques for the Inverse Problem of Simultaneously Estimating the Spatial Variations of Diffusion Coefficients and Source Terms. , 2003, , .		2
70	An Analytical Model of Phase Changing Chemically Reacting Mixture Flows. , 2003, , .		0
71	A Natural Convection Inverse Problem of Simultaneous Estimation of Two Boundary Heat Fluxes in Rectangular Cavities. , 2002, , .		1
72	Inverse convection problem of simultaneous estimation of two boundary heat fluxes in parallel plate channels. <i>Revista Brasileira De Ciencias Mecanicas/Journal of the Brazilian Society of Mechanical Sciences</i> , 2001, 23, 201-215.	0.1	5

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73	COMPARISON OF DIFFERENT VERSIONS OF THE CONJUGATE GRADIENT METHOD OF FUNCTION ESTIMATION. Numerical Heat Transfer; Part A: Applications, 1999, 36, 229-249.	1.2	77
74	Different Hydrous Ethanol-Gasoline Blends - FTIR Emissions of a Flex-Fuel Engine and Chemical Properties of the Fuels. , 0, , .		9
75	In Cylinder Pressure Curve and Combustion Parameters Variability with Ethanol Addition. , 0, , .		7
76	Prediction of Gasolines Performance in Internal Combustion Engines Using Kriging Metamodels. , 0, , .		3
77	PREDICTION OF INTERNAL COMBUSTION ENGINES PERFORMANCE RELATED TO FUEL PROPERTIES USING RADIAL BASIS FUNCTIONS. , 0, , .		2