

Francisco JosÃ© Arnau MartÃ­nez

List of Publications by Year in descending order

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64
papers

1,226
citations

430442

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docs citations

64
times ranked

497
citing authors

#	ARTICLE	IF	CITATIONS
1	A model of turbocharger radial turbines appropriate to be used in zero- and one-dimensional gas dynamics codes for internal combustion engines modelling. <i>Energy Conversion and Management</i> , 2008, 49, 3729-3745.	4.4	88
2	A fluid dynamic model for unsteady compressible flow in wall-flow diesel particulate filters. <i>Energy</i> , 2011, 36, 671-684.	4.5	75
3	Importance of Heat Transfer Phenomena in Small Turbochargers for Passenger Car Applications. <i>SAE International Journal of Engines</i> , 0, 6, 716-728.	0.4	57
4	Turbocharger heat transfer and mechanical losses influence in predicting engines performance by using one-dimensional simulation codes. <i>Energy</i> , 2015, 86, 204-218.	4.5	55
5	Determination of heat flows inside turbochargers by means of a one dimensional lumped model. <i>Mathematical and Computer Modelling</i> , 2013, 57, 1847-1852.	2.0	50
6	External heat losses in small turbochargers: Model and experiments. <i>Energy</i> , 2014, 71, 534-546.	4.5	50
7	Packed bed of spherical particles approach for pressure drop prediction in wall-flow DPFs (diesel) Tj ETQq1 1 0.784314 rgBT /Overlock 1	4.5	49
8	Methodology for characterisation and simulation of turbocharged diesel engines combustion during transient operation. Part 1: Data acquisition and post-processing. <i>Applied Thermal Engineering</i> , 2009, 29, 142-149.	3.0	46
9	Description of a Semi-Independent Time Discretization Methodology for a One-Dimensional Gas Dynamics Model. <i>Journal of Engineering for Gas Turbines and Power</i> , 2009, 131, .	0.5	42
10	Development and validation of a radial turbine efficiency and mass flow model at design and off-design conditions. <i>Energy Conversion and Management</i> , 2016, 128, 281-293.	4.4	42
11	A study on the internal convection in small turbochargers. Proposal of heat transfer convective coefficients. <i>Applied Thermal Engineering</i> , 2015, 89, 587-599.	3.0	41
12	Analysis of the capabilities of a two-stage turbocharging system to fulfil the US2007 anti-pollution directive for heavy duty diesel engines. <i>International Journal of Automotive Technology</i> , 2008, 9, 277-288.	0.7	38
13	Analysis of numerical methods to solve one-dimensional fluid-dynamic governing equations under impulsive flow in tapered ducts. <i>International Journal of Mechanical Sciences</i> , 2004, 46, 981-1004.	3.6	34
14	Time-domain computation of muffler frequency response: Comparison of different numerical schemes. <i>Journal of Sound and Vibration</i> , 2007, 305, 333-347.	2.1	34
15	Solution of the turbocompressor boundary condition for one-dimensional gas-dynamic codes. <i>Mathematical and Computer Modelling</i> , 2010, 52, 1288-1297.	2.0	29
16	Analysis and Methodology to Characterize Heat Transfer Phenomena in Automotive Turbochargers. <i>Journal of Engineering for Gas Turbines and Power</i> , 2015, 137, .	0.5	26
17	Experimental approach for the characterization and performance analysis of twin entry radial-inflow turbines in a gas stand and with different flow admission conditions. <i>Applied Thermal Engineering</i> , 2019, 159, 113737.	3.0	24
18	Derivation of the method of characteristics for the fluid dynamic solution of flow advection along porous wall channels. <i>Applied Mathematical Modelling</i> , 2012, 36, 3134-3152.	2.2	20

#	ARTICLE	IF	CITATIONS
19	Development of an Integrated Virtual Engine Model to Simulate New Standard Testing Cycles. , 0, , .		20
20	1D gas dynamic modelling of mass conservation in engine duct systems with thermal contact discontinuities. Mathematical and Computer Modelling, 2009, 49, 1078-1088.	2.0	18
21	On-Engine Measurement of Turbocharger Surge Limit. Experimental Techniques, 2013, 37, 47-54.	0.9	18
22	Analysis of the energy balance during World harmonized Light vehicles Test Cycle in warmed and cold conditions using a Virtual Engine. International Journal of Engine Research, 2020, 21, 1037-1054.	1.4	18
23	Measurement and Modeling of Compressor Surge on Engine Test Bench for Different Intake Line Configurations. , 0, , .		17
24	General Procedure for the Determination of Heat Transfer Properties in Small Automotive Turbochargers. SAE International Journal of Engines, 0, 8, 30-41.	0.4	17
25	A holistic methodology to correct heat transfer and bearing friction losses from hot turbocharger maps in order to obtain adiabatic efficiency of the turbomachinery. International Journal of Engine Research, 2020, 21, 1314-1335.	1.4	17
26	A semi-implicit space-time CE-SE method to improve mass conservation through tapered ducts in internal combustion engines. Mathematical and Computer Modelling, 2004, 40, 941-951.	2.0	16
27	Description and Analysis of a One-Dimensional Gas-Dynamic Model With Independent Time Discretization. , 2008, , .		16
28	Lumped Approach for Flow-Through and Wall-Flow Monolithic Reactors Modelling for Real-Time Automotive Applications. , 0, , .		16
29	A Simple Model for Predicting the Trapped Mass in a DI Diesel Engine. , 2007, , .		15
30	An innovative losses model for efficiency map fitting of vaneless and variable vaned radial turbines extrapolating towards extreme off-design conditions. Energy, 2019, 180, 626-639.	4.5	15
31	Diesel engine optimization and exhaust thermal management by means of variable valve train strategies. International Journal of Engine Research, 2021, 22, 1196-1213.	1.4	14
32	Analysis of a novel concept of 2-stroke rod-less opposed pistons engine (2S-ROPE): Testing, modelling, and forward potential. Applied Energy, 2021, 282, 116135.	5.1	14
33	Oxy-fuel combustion feasibility of compression ignition engines using oxygen separation membranes for enabling carbon dioxide capture. Energy Conversion and Management, 2021, 247, 114732.	4.4	14
34	High-frequency response of a calculation methodology for gas dynamics based on Independent Time Discretisation. Mathematical and Computer Modelling, 2009, 50, 812-822.	2.0	12
35	Analysis of Engine Walls Thermal Insulation: Performance and Emissions. , 0, , .		12
36	Effect of the exhaust thermal insulation on the engine efficiency and the exhaust temperature under transient conditions. International Journal of Engine Research, 2021, 22, 2869-2883.	1.4	11

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37	Contribution to the Modeling and Understanding of Cold Pulsating Flow Influence in the Efficiency of Small Radial Turbines for Turbochargers. Journal of Engineering for Gas Turbines and Power, 2012, 134, .	0.5	10
38	Experimental validation of a one-dimensional twin-entry radial turbine model under non-linear pulse conditions. International Journal of Engine Research, 2021, 22, 390-406.	1.4	10
39	Acoustic One-Dimensional Compressor Model for Integration in a Gas-Dynamic Code. , 0, , .		9
40	A Procedure to Achieve 1D Predictive Modeling of Turbochargers under Hot and Pulsating Flow Conditions at the Turbine Inlet. , 2014, , .		9
41	Methodology to Characterize Heat Transfer Phenomena in Small Automotive Turbochargers: Experiments and Modelling Based Analysis. , 2014, , .		9
42	Analysis of low-pressure exhaust gases recirculation transport and control in transient operation of automotive diesel engines. Applied Thermal Engineering, 2018, 137, 184-192.	3.0	9
43	Heat Transfer Model to Calculate Turbocharged HSDI Diesel Engines Performance. , 0, , .		8
44	Global Analysis of the EGR Circuit in a HSDI Diesel Engine in Transient Operation. , 2005, , .		8
45	Application of the two-step Lax and Wendroff FCT and the CE-SE method to flow transport in wall-flow monoliths. International Journal of Computer Mathematics, 2014, 91, 71-84.	1.0	8
46	Development of a Variable Valve Actuation Control to Improve Diesel Oxidation Catalyst Efficiency and Emissions in a Light Duty Diesel Engine. Energies, 2020, 13, 4561.	1.6	8
47	On the effect of different flux limiters on the performance of an engine gas exchange gas-dynamic model. International Journal of Mechanical Sciences, 2017, 133, 740-751.	3.6	7
48	Cooled EGR Modulation: A Strategy to Meet EURO IV Emission Standards in Automotive DI Diesel Engines. , 0, , .		6
49	Experimental procedure for the characterization of turbocharger's waste-gate discharge coefficient. Advances in Mechanical Engineering, 2017, 9, 168781401772824.	0.8	5
50	A Methodology to Calibrate Gas-Dynamic Models of Turbocharged Petrol Engines With Variable Geometry Turbines and With Focus on Dynamics Prediction During Tip-in Load Transient Tests. , 2020, , .		5
51	A Methodology for Measuring Turbocharger Adiabatic Maps in a Gas-Stand and Its Usage for Calibrating Control Oriented and One-Dimensional Models at Early ICE Design Stages. Journal of Energy Resources Technology, Transactions of the ASME, 2021, 143, .	1.4	5
52	Experimental validation of a new semi-implicit CE-SE scheme for the calculation of unsteady one-dimensional flow in tapered ducts. International Journal for Numerical Methods in Engineering, 2008, 74, 1473-1494.	1.5	4
53	A non-linear quasi-3D model with Flux-Corrected-Transport for engine gas-exchange modelling. Journal of Computational and Applied Mathematics, 2016, 291, 103-111.	1.1	4
54	Phenomenological methodology for assessing the influence of flow conditions on the acoustic response of exhaust aftertreatment systems. Journal of Sound and Vibration, 2017, 396, 289-306.	2.1	4

#	ARTICLE	IF	CITATIONS
55	Experimental validation of a quasi-two-dimensional radial turbine model. International Journal of Engine Research, 2020, 21, 915-926.	1.4	4
56	A Robust Adiabatic Model for a Quasi-Steady Prediction of Far-Off Non-Measured Performance in Vaneless Twin-Entry or Dual-Volute Radial Turbines. Applied Sciences (Switzerland), 2020, 10, 1955.	1.3	4
57	Analysis of temperature and altitude effects on the Global Energy Balance during WLTC. International Journal of Engine Research, 2022, 23, 1831-1849.	1.4	3
58	An iterative method to obtain analytical-numerical approximation of the one-dimensional gas flow transport solution in conical ducts. Mathematical and Computer Modelling, 2005, 41, 407-416.	2.0	2
59	Assessment of a methodology to mesh the spatial domain in the proximity of the boundary conditions for one-dimensional gas dynamic calculation. Mathematical and Computer Modelling, 2011, 54, 1747-1752.	2.0	2
60	A Methodology for Measuring Turbocharger Adiabatic Maps in a Gas-Stand and its Usage for Calibrating Control Oriented and 1D Models at Early ICE Design Stages. , 2019, , .		2
61	Impact of a Holistic Turbocharger Model in the Prediction of Engines Performance in Transient Operation and in Steady State With LP-EGR. , 2018, , .		1
62	An Experimental and Modeling Strategy for Obtaining Complete Characteristic Maps of Dual-Volute Radial Inflow Turbines. Journal of Engineering for Gas Turbines and Power, 2021, 143, .	0.5	0
63	An Experimental and Modelling Strategy for Obtaining Complete Characteristic Maps of Dual-Volute Radial Inflow Turbines. , 2020, , .		0
64	Thermo-economic analysis of an oxygen production plant powered by an innovative energy recovery system. Energy, 2022, 255, 124419.	4.5	0