Jr Serrano

List of Publications by Year
in descending order

43 papers	1,478 citations	361045 20 h-index	344852 36 g-index
43 all docs	43 docs citations	43 times ranked	766 citing authors

#	ARTICLE	IF	CITATIONS
1	Surge limit definition in a specific test bench for the characterization of automotive turbochargers. Experimental Thermal and Fluid Science, 2006, 30, 449-462.	1.5	116
2	Experiments and modelling of surge in small centrifugal compressor for automotive engines. Experimental Thermal and Fluid Science, 2008, 32, 818-826.	1.5	114
3	A model of turbocharger radial turbines appropriate to be used in zero- and one-dimensional gas dynamics codes for internal combustion engines modelling. Energy Conversion and Management, 2008, 49, 3729-3745.	4.4	88
4	Impact of two-stage turbocharging architectures on pumping losses of automotive engines based on an analytical model. Energy Conversion and Management, 2010, 51, 1958-1969.	4.4	84
5	A fluid dynamic model for unsteady compressible flow in wall-flow diesel particulate filters. Energy, 2011, 36, 671-684.	4.5	75
6	Methodology to design a bottoming Rankine cycle, as a waste energy recovering system in vehicles. Study in a HDD engine. Applied Energy, 2013, 104, 758-771.	5.1	74
7	Potential of flow pre-whirl at the compressor inlet of automotive engine turbochargers to enlarge surge margin and overcome packaging limitations. International Journal of Heat and Fluid Flow, 2007, 28, 374-387.	1.1	69
8	Combustion simulation of turbocharger HSDI Diesel engines during transient operation using neural networks. Applied Thermal Engineering, 2005, 25, 877-898.	3.0	60
9	A physically based methodology to extrapolate performance maps of radial turbines. Energy Conversion and Management, 2012, 55, 149-163.	4.4	56
10	Design of an exhaust manifold to improve transient performance of a high-speed turbocharged diesel engine. Experimental Thermal and Fluid Science, 2004, 28, 863-875.	1.5	53
11	Pre-DPF water injection technique for pressure drop control in loaded wall-flow diesel particulate filters. Applied Energy, 2015, 140, 234-245.	5.1	52
12	Procedure for engine transient cycle emissions testing in real time. Experimental Thermal and Fluid Science, 2006, 30, 485-496.	1.5	51
13	Experimentalâ€“theoretical methodology for determination of inertial pressure drop distribution and pore structure properties in wall-flow diesel particulate filters (DPFs). Energy, 2011, 36, 6731-6744.	4.5	48
14	Methodology for characterisation and simulation of turbocharged diesel engines combustion during transient operation. Part 1: Data acquisition and post-processing. Applied Thermal Engineering, 2009, 29, 142-149.	3.0	46
15	HD Diesel engine equipped with a bottoming Rankine cycle as a waste heat recovery system. Part 2: Evaluation of alternative solutions. Applied Thermal Engineering, 2012, 36, 279-287.	3.0	45
16	Description of a heat transfer model suitable to calculate transient processes of turbocharged diesel engines with one-dimensional gas-dynamic codes. Applied Thermal Engineering, 2006, 26, 66-76.	3.0	41
17	Methodology for characterisation and simulation of turbocharged diesel engines combustion during transient operation. Part 2: Phenomenological combustion simulation. Applied Thermal Engineering, 2009, 29, 150-158.	3.0	41
18	Analysis of numerical methods to solve one-dimensional fluid-dynamic governing equations under impulsive flow in tapered ducts. International Journal of Mechanical Sciences, 2004, 46, 981-1004.	3.6	34

#	ARTICLE	IF	CITATIONS
19	Time-domain computation of muffler frequency response: Comparison of different numerical schemes. Journal of Sound and Vibration, 2007, 305, 333-347.	2.1	34
20	Analysis of fluid-dynamic guidelines in diesel particulate filter sizing for fuel consumption reduction in post-turbo and pre-turbo placement. Applied Energy, 2014, 132, 507-523.	5.1	24
21	Theoretical and experimental evaluation of the spark-ignition premixed oxy-fuel combustion concept for future CO2 captive powerplants. Energy Conversion and Management, 2021, 244, 114498.	4.4	23
22	An on-engine method for dynamic characterisation of NO concentration sensors. Experimental Thermal and Fluid Science, 2011, 35, 470-476.	1.5	21
23	Derivation of the method of characteristics for the fluid dynamic solution of flow advection along porous wall channels. Applied Mathematical Modelling, 2012, 36, 3134-3152.	2.2	20
24	A modelling tool for engine and exhaust aftertreatment performance analysis in altitude operation. Results in Engineering, 2019, 4, 100054.	2.2	19
25	Experimental Study of the Turbine Inlet Gas Temperature Influence on Turbocharger Performance. , 0, , .		18
26	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
27	Internal pore diffusion and adsorption impact on the soot oxidation in wall-flow particulate filters. Energy, 2019, 179, 407-421.	4.5	18
28	A Model for Load Transients of Turbocharged Diesel Engines. , 1999, , .		14
29	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
30	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
31	Study of turbocharger shaft motion by means of non-invasive optical techniques: Application to the behaviour analysis in turbocharger lubrication failures. Mechanical Systems and Signal Processing, 2012, 32, 292-305.	4.4	13
32	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
33	Relevance of valve overlap for meeting Euro 5 soot emissions requirements during load transient process in heavy duty diesel engines. International Journal of Vehicle Design, 2006, 41, 343.	0.1	11
34	Performance Analysis of a Turbocharged Heavy Duty Diesel Engine with a Pre-turbo Diesel Particulate Filter Configuration. SAE International Journal of Engines, 0, 4, 2559-2575.	0.4	11
35	Behavior of an IC Engine Turbocharger in Critical Conditions of Lubrication. SAE International Journal of Engines, 0, 6, 797-805.	0.4	8
36	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

#	ARTICLE	IF	CITATIONS
37	Analytic-numerical approach to flow calculation in intake and exhaust systems of internal combustion engines. Mathematical and Computer Modelling, 2002, 36, 33-45.	2.0	6
38	Analysis of an extremely fast valve opening camless system to improve transient performance in a turbocharged high speed direct injection diesel engine. International Journal of Vehicle Design, 2009, 49, 192.	0.1	5
39	Study of the Effects on Turbocharger Performance Generated by the Presence of Foreign Objects at the Compressor Intake. Experimental Techniques, 2013, 37, 30-40.	0.9	5
40	Analysis of shock capturing methods for chemical species transport in unsteady compressible flow. Mathematical and Computer Modelling, 2013, 57, 1751-1759.	2.0	5
41	A new iterative method for flow calculation in intake and exhaust systems of internal combustion engines. Mathematical and Computer Modelling, 2003, 38, 99-111.	2.0	4
42	Study of the turbocharger shaft motion by means of infrared sensors. Mechanical Systems and Signal Processing, 2015, 56-57, 246-258.	4.4	4
43	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