Roberto Navarro

List of Publications by Year
in descending order

36 papers	608 citations	623734 14 h-index	610901 24 g-index
38 all docs	38 docs citations	38 times ranked	333 citing authors

#	Article	IF	Citations
1	Characterization of a radial turbocharger turbine in pulsating flow by means of CFD and its application to engine modeling. Applied Energy, 2013, 103, 116-127.	10.1	109
2	Effect of the inlet geometry on performance, surge margin and noise emission of an automotive turbocharger compressor. Applied Thermal Engineering, 2017, 110, 875-882.	6.0	62
3	Methodology for experimental validation of a CFD model for predicting noise generation in centrifugal compressors. International Journal of Heat and Fluid Flow, 2014, 50, 134-144.	2.4	48
4	Influence of tip clearance on flow behavior and noise generation of centrifugal compressors in near-surge conditions. International Journal of Heat and Fluid Flow, 2015, 52, 129-139.	2.4	43
5	Numerical and experimental analysis of automotive turbocharger compressor aeroacoustics at different operating conditions. International Journal of Heat and Fluid Flow, 2016, 61, 245-255.	2.4	33
6	Simulations and measurements of automotive turbocharger compressor whoosh noise. Engineering Applications of Computational Fluid Mechanics, 2015, 9, 12-20.	3.1	32
7	Set-Up Analysis and Optimization of CFD Simulations for Radial Turbines. Engineering Applications of Computational Fluid Mechanics, 2013, 7, 441-460.	3.1	28
8	Coupling methodology of 1D finite difference and 3D finite volume CFD codes based on the Method of Characteristics. Mathematical and Computer Modelling, 2011, 54, 1738-1746.	2.0	25
9	Turbocharger turbine rotor tip leakage loss and mass flow model valid up to extreme off-design conditions with high blade to jet speed ratio. Energy, 2018, 147, 1299-1310.	8.8	25
10	Development of Non-Reflecting Boundary Condition for Application in 3D Computational Fluid Dynamics Codes. Engineering Applications of Computational Fluid Mechanics, 2012, 6, 447-460.	3.1	23
11	Acoustic characterization of automotive turbocompressors. International Journal of Engine Research, 2015, 16, 31-37.	2.3	22
12	Development and verification of an in-flow water condensation model for 3D-CFD simulations of humid air streams mixing. Computers and Fluids, 2018, 167, 158-165.	2.5	19
13	Analysis of the impact of the geometry on the performance of an automotive centrifugal compressor using CFD simulations. Applied Thermal Engineering, 2019, 148, 1324-1333.	6.0	17
14	A zonal approach for estimating pressure ratio at compressor extreme off-design conditions. International Journal of Engine Research, 2019, 20, 393-404.	2.3	17
15	Validation and sensitivity analysis of an in-flow water condensation model for 3D-CFD simulations of humid air streams mixing. International Journal of Thermal Sciences, 2019, 136, 410-419.	4.9	14
16	Development of an experimental test bench and a psychrometric model for assessing condensation on a low-pressure exhaust gas recirculation cooler. International Journal of Engine Research, 2021, 22, 1540-1550.	2.3	13
17	Compressor Efficiency Extrapolation for 0D-1D Engine Simulations. , 0, , .		11
18	Contribution to tip leakage loss modeling in radial turbines based on 3D flow analysis and 1D characterization. International Journal of Heat and Fluid Flow, 2019, 78, 108423.	2.4	11

#	Article	IF	Citations
19	Centrifugal compressor influence on condensation due to Long Route-Exhaust Gas Recirculation mixing. Applied Thermal Engineering, 2018, 144, 901-909.	6.0	8
20	Assessment of the numerical and experimental methodology to predict EGR cylinder-to-cylinder dispersion and pollutant emissions. International Journal of Engine Research, 2021, 22, 3128-3146.	2.3	8
21	Analysis of the influence of different real flow effects on computational fluid dynamics boundary conditions based on the method of characteristics. Mathematical and Computer Modelling, 2013, 57, 1957-1964.	2.0	7
22	Modelling Analysis of Aftertreatment Inlet Temperature Dependence on Exhaust Valve and Ports Design Parameters. , 0, , .		6
23	Design and Numerical Analysis of Flow Characteristics in a Scaled Volute and Vaned Nozzle of Radial Turbocharger Turbines. Energies, 2020, 13, 2930.	3.1	5
24	Analysis of condensation and secondary flows at three-way junctions using optical visualization techniques and computational fluid dynamics. International Journal of Multiphase Flow, 2021, 141, 103674.	3.4	5
25	A study on the high pressure EGR transport and application to the dispersion among cylinders in automotive engines. International Journal of Engine Research, 2021, 22, 3164-3178.	2.3	4
26	Numerical assessment of mixing of humid air streams in three-way junctions and impact on volume condensation. Applied Thermal Engineering, 2022, 201, 117676.	6.0	4
27	Quantitative validation of an in-flow water condensation model for 3D-CFD simulations of three-way junctions using indirect condensation measurements. International Journal of Thermal Sciences, 2022, 172, 107303.	4.9	4
28	Extremely Low Mass Flow at High Blade to Jet Speed Ratio in Variable Geometry Radial Turbines and its Influence on the Flow Pattern: A CFD Analysis. , 2017, , .		2
29	Influence of Tip Clearance on Flow Behavior and Noise Generation. Springer Theses, 2018, , 41-58.	0.1	1
30	Predicting Flow-Induced Acoustics at Near-Stall Conditions in an Automotive Turbocharger Compressor. Springer Theses, 2018, , .	0.1	1
31	Use of scoring rubrics for evaluating oral presentations in aerospace engineering education. , 2015, , .		1
32	Sensitivity of Compressor Noise Prediction toÂNumerical Setup. Springer Theses, 2018, , 59-89.	0.1	0
33	Method for Non-Dimensional Tip Leakage Flow Characterization in Radial Turbines. , 2018, , .		0
34	Methodology for Experimental Validation. Springer Theses, 2018, , 13-40.	0.1	0
35	Compressor Mean Flow Field at Near-Stall Conditions. Springer Theses, 2018, , 91-112.	0.1	0
36	Compressor Aerocoustics at Near-Stall Conditions. Springer Theses, 2018, , 113-128.	0.1	0