

Lorenzo Ferrari

List of Publications by Year in descending order

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67
papers

2,589
citations

257101

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h-index

197535

49
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67
all docs

67
docs citations

67
times ranked

2279
citing authors

#	ARTICLE	IF	CITATIONS
1	Hyperbolic metamaterials and their applications. <i>Progress in Quantum Electronics</i> , 2015, 40, 1-40.	3.5	535
2	Critical issues in the CFD simulation of Darrieus wind turbines. <i>Renewable Energy</i> , 2016, 85, 419-435.	4.3	284
3	Feasibility analysis of a Darrieus vertical-axis wind turbine installation in the rooftop of a building. <i>Applied Energy</i> , 2012, 97, 921-929.	5.1	225
4	Dimensionless numbers for the assessment of mesh and timestep requirements in CFD simulations of Darrieus wind turbines. <i>Energy</i> , 2016, 97, 246-261.	4.5	105
5	Darrieus wind turbine blade unsteady aerodynamics: a three-dimensional Navier-Stokes CFD assessment. <i>Energy</i> , 2017, 128, 550-563.	4.5	90
6	Design guidelines for H-Darrieus wind turbines: Optimization of the annual energy yield. <i>Energy Conversion and Management</i> , 2015, 89, 690-707.	4.4	89
7	Enhanced spontaneous emission inside hyperbolic metamaterials. <i>Optics Express</i> , 2014, 22, 4301.	1.7	76
8	Experimental Demonstration of Localized Plasmonic Structured Illumination Microscopy. <i>ACS Nano</i> , 2017, 11, 5344-5350.	7.3	76
9	Multi-criteria investigation of a pumped thermal electricity storage (PTES) system with thermal integration and sensible heat storage. <i>Energy Conversion and Management</i> , 2020, 208, 112530.	4.4	66
10	Microeolic turbines in the built environment: Influence of the installation site on the potential energy yield. <i>Renewable Energy</i> , 2012, 45, 163-174.	4.3	65
11	Virtual incidence effect on rotating airfoils in Darrieus wind turbines. <i>Energy Conversion and Management</i> , 2016, 111, 329-338.	4.4	65
12	Analysis of suitability ranges of high temperature heat pump working fluids. <i>Applied Thermal Engineering</i> , 2019, 150, 628-640.	3.0	64
13	Experimental analysis of R744 parallel compression cycle. <i>Applied Energy</i> , 2014, 135, 274-285.	5.1	59
14	Rankine Carnot Batteries with the Integration of Thermal Energy Sources: A Review. <i>Energies</i> , 2020, 13, 4766.	1.6	47
15	Hyperbolic metamaterials for dispersion-assisted directional light emission. <i>Nanoscale</i> , 2017, 9, 9034-9048.	2.8	43
16	Biogas from Anaerobic Digestion: Power Generation or Biomethane Production?. <i>Energies</i> , 2020, 13, 743.	1.6	41
17	Influence of the heat storage size on the plant performance in a Smart User case study. <i>Applied Energy</i> , 2013, 112, 1454-1465.	5.1	38
18	An Improved Model for the Performance Estimation of an H-Darrieus Wind Turbine in Skewed Flow. <i>Wind Engineering</i> , 2012, 36, 667-686.	1.1	36

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19	Blade Design Criteria to Compensate the Flow Curvature Effects in H-Darrieus Wind Turbines. Journal of Turbomachinery, 2015, 137, .	0.9	33
20	Optical Observation of Plasmonic Nonlocal Effects in a 2D Superlattice of Ultrasmall Gold Nanoparticles. Nano Letters, 2017, 17, 2234-2239.	4.5	33
21	Energy recovery by means of a radial piston expander in a CO2 refrigeration system. International Journal of Refrigeration, 2016, 72, 147-155.	1.8	31
22	A Model to Account for the Virtual Camber Effect in the Performance Prediction of an H-Darrieus VAWT Using the Momentum Models. Wind Engineering, 2011, 35, 465-482.	1.1	28
23	Potential energy recovery by integrating an ORC in a biogas plant. Applied Energy, 2019, 256, 113960.	5.1	27
24	Suitability of coupling a solar powered ejection cycle with a vapour compression refrigerating machine. Applied Energy, 2012, 97, 374-383.	5.1	25
25	Analysis of a solar assisted vapour compression cooling system. Renewable Energy, 2013, 49, 48-52.	4.3	25
26	Start-Up Behavior of a Three-Bladed H-Darrieus VAWT: Experimental and Numerical Analysis. , 2011, , .		24
27	Feasibility Analysis of Bio-Methane Production in a Biogas Plant: A Case Study. Energies, 2019, 12, 473.	1.6	24
28	Analysis of the Rotordynamic Response of a Centrifugal Compressor Subject to Aerodynamic Loads Due to Rotating Stall. Journal of Turbomachinery, 2015, 137, .	0.9	23
29	Design and Analysis of Blue InGaN/GaN Plasmonic LED for High-Speed, High-Efficiency Optical Communications. ACS Photonics, 2018, 5, 3557-3564.	3.2	22
30	Development of an optimization algorithm for the energy management of an industrial Smart User. Applied Energy, 2017, 208, 1468-1486.	5.1	21
31	Experimental Demonstration of Hyperbolic Metamaterial Assisted Illumination Nanoscopy. ACS Nano, 2018, 12, 11316-11322.	7.3	20
32	A Systematic Approach to Estimate the Impact of the Aerodynamic Force Induced by Rotating Stall in a Vaneless Diffuser on the Rotordynamic Behavior of Centrifugal Compressors. Journal of Engineering for Gas Turbines and Power, 2013, 135, .	0.5	19
33	Radial piston expander as a throttling valve in a heat pump: Focus on the 2-phase expansion. International Journal of Refrigeration, 2017, 82, 273-282.	1.8	18
34	A reciprocating compressor hybrid model with acoustic FEM characterization. International Journal of Refrigeration, 2016, 63, 171-183.	1.8	17
35	Use of Pressure-Retarded-Osmosis to reduce Reverse Osmosis energy consumption by exploiting hypersaline flows. Energy, 2020, 211, 118969.	4.5	15
36	Impact of wind speed distribution and management strategy on hydrogen production from wind energy. Energy, 2022, 256, 124636.	4.5	14

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37	Investigation on the feasibility of integration of high temperature solar energy in a textile factory. <i>Renewable Energy</i> , 2011, 36, 3517-3529.	4.3	13
38	Blade Design Criteria to Compensate the Flow Curvature Effects in H-Darrieus Wind Turbines. , 2014, , .		13
39	Structural Analysis of a Small H-Darrieus Wind Turbine Using Beam Models: Development and Assessment. <i>Journal of Turbomachinery</i> , 2015, 137, 011003.	0.9	12
40	Small-Scale Desalination Plant Driven by Solar Energy for Isolated Communities. <i>Energies</i> , 2020, 13, 3864.	1.6	12
41	Energy-Yield-Based Optimization of an H-Darrieus Wind Turbine. , 2012, , .		11
42	Steam expander as a throttling valve replacement in industrial plants: A techno-economic feasibility analysis. <i>Applied Energy</i> , 2019, 238, 11-21.	5.1	11
43	Setup and characterisation of a multi-purpose test rig for R744 refrigerating cycles and equipment. <i>International Journal of Refrigeration</i> , 2012, 35, 1848-1859.	1.8	10
44	Small Wind Turbines in the Built Environment: Influence of Flow Inclination on the Potential Energy Yield. <i>Journal of Turbomachinery</i> , 2014, 136, .	0.9	10
45	Acoustic Characterization of Automotive Mufflers - Part I: Test Rig Design and Evaluation of Acoustic Properties. , 0, , .		9
46	Some Guidelines for the Experimental Characterization of Vaneless Diffuser Rotating Stall in Stages of Industrial Centrifugal Compressors. , 2014, , .		9
47	Energy and economic savings through a plant supervised management in large-scale commercial activities. <i>Applied Thermal Engineering</i> , 2018, 141, 269-279.	3.0	8
48	Experimental Characterization of a Remoting System for Dynamic Pressure Sensors. , 2005, , 715.		7
49	Optimization of Nanopatterned Multilayer Hyperbolic Metamaterials for Spontaneous Light Emission Enhancement. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1800263.	0.8	6
50	The pulse coupled phasor measurement units. , 2014, , .		5
51	ORC Optimal Design through Clusterization for Waste Heat Recovery in Anaerobic Digestion Plants. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 2762.	1.3	5
52	A Methodology for Engine Performance Optimization. , 0, , .		4
53	Acoustic Characterization of Automotive Mufflers - Part II: Validation of the Numerical Models by Means of Experimental Data. , 0, , .		4
54	An Experimental Methodology for the Reconstruction of Three-Dimensional Acoustic Pressure Fields in Ducts. <i>Journal of Engineering for Gas Turbines and Power</i> , 2014, 136, .	0.5	4

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55	Rotating Stall in Centrifugal Compressor Vaneless Diffuser: Experimental Analysis of Geometrical Parameters Influence on Phenomenon Evolution. International Journal of Rotating Machinery, 2004, 10, 433-442.	0.8	3
56	Effects Due to the Temperature Measurement Section on the Performance Estimation of a Centrifugal Compressor Stage. Journal of Engineering for Gas Turbines and Power, 2012, 134, .	0.5	3
57	Pyrometric Estimation of Exhaust Valve Temperature of an Internal Combustion Engine. Journal of Engineering for Gas Turbines and Power, 2014, 136, .	0.5	2
58	Development and characterization of a compact rig to test expanders for superheated and saturated organic fluids. Energy Conversion and Management, 2019, 188, 262-275.	4.4	2
59	Small Wind Turbines in the Built Environment: Influence of Flow Inclination on the Potential Energy Yield. , 2013, , .		1
60	Analysis of the Rotordynamic Response of a Centrifugal Compressor Subject to Aerodynamic Loads due to Rotating Stall. , 2014, , .		1
61	Development of an Innovative Multi-Sensor Waveguide Probe With Improved Measurement Capabilities. , 2014, , .		1
62	A New-Conception, Electromagnetically Controlled, Diaphragmless Shock Tube. , 2003, , 377.		0
63	A Systematic Approach to Estimate the Impact of the Aerodynamic Force Induced by Rotating Stall in a Vaneless Diffuser on the Rotordynamic Behavior of Centrifugal Compressors. , 2013, , .		0
64	Structural Analysis of a Small H-Darrieus Wind Turbine Using Beam Models: Development and Assessment. , 2014, , .		0
65	Influence of the piston displacement profile on the performance of a refrigerating cycle equipped with an axial piston compressor. International Journal of Refrigeration, 2017, 82, 302-311.	1.8	0
66	Effects due to the Temperature Measurement Section on the Performance Estimation of a Centrifugal Compressor Stage. , 2011, , .		0
67	Absorption Chillers to Improve the Performance of Small-Scale Biomethane Liquefaction Plants. Energies, 2022, 15, 92.	1.6	0