

Jesus Manuel Fernandez Oro

List of Publications by Year in descending order

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92
papers

1,128
citations

430874

18
h-index

477307

29
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92
all docs

92
docs citations

92
times ranked

783
citing authors

#	ARTICLE	IF	CITATIONS
1	Numerical investigation of underground reservoirs in compressed air energy storage systems considering different operating conditions: Influence of thermodynamic performance on the energy balance and round-trip efficiency. <i>Journal of Energy Storage</i> , 2022, 46, 103816.	8.1	13
2	Novel methodology for performance characterization of vertical axis wind turbines (VAWT) prototypes through active driving mode. <i>Energy Conversion and Management</i> , 2022, 258, 115530.	9.2	5
3	Preliminary flow measurements of a small-scale, vertical axis wind turbine for the analysis of blockage influence in wind tunnels. <i>Journal of Physics: Conference Series</i> , 2022, 2217, 012039.	0.4	2
4	Concentration, Propagation and Dilution of Toxic Gases in Underground Excavations under Different Ventilation Modes. <i>International Journal of Environmental Research and Public Health</i> , 2022, 19, 7092.	2.6	8
5	Mathematical formulation for the analysis of the periodic convergence during co-processing routines in long-run, scale-resolving simulations of turbomachinery. <i>Progress in Computational Fluid Dynamics</i> , 2021, 21, 141.	0.2	0
6	CFD Analysis of the Performance of a Double Decker Turbine for Wave Energy Conversion. <i>Energies</i> , 2021, 14, 949.	3.1	4
7	Thermodynamic Analysis of Compressed Air Energy Storage (CAES) Reservoirs in Abandoned Mines Using Different Sealing Layers. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 2573.	2.5	11
8	Design of a new turbine for OWC wave energy converters: The DDT concept. <i>Renewable Energy</i> , 2021, 169, 404-413.	8.9	5
9	Analytical models for adiabatic compressed air energy storage (A-CAES) systems in lined tunnels. <i>IOP Conference Series: Earth and Environmental Science</i> , 2021, 897, 012008.	0.3	1
10	Experimental study of the unsteady vibration signature for a Sirocco fan unit. <i>Journal of Low Frequency Noise Vibration and Active Control</i> , 2020, 39, 129-148.	2.9	3
11	Feasibility analysis of using mine water from abandoned coal mines in Spain for heating and cooling of buildings. <i>Renewable Energy</i> , 2020, 146, 1166-1176.	8.9	38
12	Simplified Assessment on the Wind Farm Noise Impact of the E2O Experimental Offshore Station in the Asturian Coast. <i>Energies</i> , 2020, 13, 5788.	3.1	3
13	Stator-rotor interaction in the tip leakage flow of an inlet vaned low-speed axial fan. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2020, 30, 4425-4452.	2.8	6
14	Flow pattern analysis of an outflow radial turbine for twin-turbines-OWC wave energy converters. <i>Energy</i> , 2020, 211, 118584.	8.8	4
15	Transient Simulation of Underground Pumped Storage Hydropower Plants Operating in Pumping Mode. <i>Energies</i> , 2020, 13, 1781.	3.1	16
16	Wall-Resolved LES Modeling of a Wind Turbine Airfoil at Different Angles of Attack. <i>Journal of Marine Science and Engineering</i> , 2020, 8, 212.	2.6	6
17	Economic Feasibility of Underground Pumped Storage Hydropower Plants Providing Ancillary Services. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 3947.	2.5	18
18	An optimized airfoil geometry for vertical-axis wind turbine applications. <i>International Journal of Green Energy</i> , 2020, 17, 181-195.	3.8	7

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19	Efficiency analysis of underground pumped storage hydropower plants. <i>Journal of Energy Storage</i> , 2020, 28, 101234.	8.1	43
20	Stability analysis of the underground infrastructure for pumped storage hydropower plants in closed coal mines. <i>Tunnelling and Underground Space Technology</i> , 2019, 94, 103117.	6.2	34
21	Unsteady three-dimensional modeling of the Fluid-Structure Interaction in the check valves of diaphragm volumetric pumps. <i>Journal of Fluids and Structures</i> , 2019, 90, 432-449.	3.4	18
22	Application of Richardson extrapolation method to the CFD simulation of vertical-axis wind turbines and analysis of the flow field. <i>Engineering Applications of Computational Fluid Mechanics</i> , 2019, 13, 359-376.	3.1	18
23	Pumped-storage hydropower plants with underground reservoir: Influence of air pressure on the efficiency of the Francis turbine and energy production. <i>Renewable Energy</i> , 2019, 143, 1427-1438.	8.9	27
24	Symmetrized dot pattern analysis for the unsteady vibration state in a Sirocco fan unit. <i>Applied Acoustics</i> , 2019, 152, 1-12.	3.3	11
25	Turbulence-Model Comparison for Aerodynamic-Performance Prediction of a Typical Vertical-Axis Wind-Turbine Airfoil. <i>Energies</i> , 2019, 12, 488.	3.1	14
26	Numerical Analysis of the Deterministic Stresses Associated to Impeller-Tongue Interactions in a Single Volute Centrifugal Pump. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2019, 141, .	1.5	3
27	Optimization and experimental tests of a centrifugal turbine for an OWC device equipped with a twin turbines configuration. <i>Energy</i> , 2019, 171, 710-720.	8.8	9
28	Numerical methodology for the CFD simulation of diaphragm volumetric pumps. <i>International Journal of Mechanical Sciences</i> , 2019, 150, 322-336.	6.7	19
29	LES-based simulation of the time-resolved flow for rotor-stator interactions in axial fan stages. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2019, 29, 657-681.	2.8	8
30	Energy storage in underground coal mines in NW Spain: Assessment of an underground lower water reservoir and preliminary energy balance. <i>Renewable Energy</i> , 2019, 134, 1381-1391.	8.9	59
31	Viability of unidirectional radial turbines for twin-turbine configuration of OWC wave energy converters. <i>Ocean Engineering</i> , 2018, 154, 288-297.	4.3	13
32	Parametrical evaluation of the aerodynamic performance of vertical axis wind turbines for the proposal of optimized designs. <i>Energy</i> , 2018, 147, 504-517.	8.8	37
33	LES-based numerical prediction of the trailing edge noise in a small wind turbine airfoil at different angles of attack. <i>Renewable Energy</i> , 2018, 120, 241-254.	8.9	19
34	A CFD study on the fluctuating flow field across a parallel triangular array with one tube oscillating transversely. <i>Journal of Fluids and Structures</i> , 2018, 76, 411-430.	3.4	3
35	Performance Curve of a Radial Flow Turbine for an OWC Plant. <i>Proceedings (mdpi)</i> , 2018, 2, .	0.2	0
36	Aerodynamic Design of a Small-Scale Model of a Vertical Axis Wind Turbine. <i>Proceedings (mdpi)</i> , 2018, 2, .	0.2	2

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37	Wells Turbine With Variable Blade Profile for Wave Energy Conversion. , 2018, , .		0
38	Deterministic Decomposition of the Unsteady Flow in a Unidirectional Axial Turbine for OWC Plant. , 2018, , .		0
39	Proposal of an Optimized Airfoil Geometry for Vertical-Axis Wind Turbine Applications. Proceedings (mdpi), 2018, 2, .	0.2	0
40	Thermal response and failure mode evaluation of a dry-type transformer. Applied Thermal Engineering, 2017, 120, 763-771.	6.0	30
41	Purified orbit diagram and numerical study for a failure analysis of a Sirocco fan. Advances in Mechanical Engineering, 2017, 9, 168781401773343.	1.6	2
42	Turbulence Transport in Rotor-Stator and Stator-Rotor Stages of Axial Flow Fans. , 2017, , .		0
43	Turbulence Structure around an Asymmetric High-Lift Airfoil for Different Incidence Angles. Journal of Applied Fluid Mechanics, 2017, 10, 1013-1027.	0.2	12
44	Effects of prong-wire interferences in dual hot-wire probes on the measurements of unsteady flows and turbulence in low-speed axial fans. Measurement: Journal of the International Measurement Confederation, 2016, 91, 1-11.	5.0	7
45	CFD modelling of the cross-flow through normal triangular tube arrays with one tube undergoing forced vibrations or fluidelastic instability. Journal of Fluids and Structures, 2016, 64, 67-86.	3.4	37
46	Evaluation of Interaction and Blockage Effects for Multi-fan Units used in Public Transport HVAC Systems. International Journal of Ventilation, 2015, 13, 339-350.	0.4	1
47	Fault Diagnosis Technique for a Squirrel Cage Fan Using Vibration Analysis Signals. , 2014, , .		0
48	Converged statistics for time-resolved measurements in low-speed axial fans using high-frequency response probes. Experimental Thermal and Fluid Science, 2014, 54, 71-84.	2.7	4
49	Numerical modeling of the piston effect in longitudinal ventilation systems for subway tunnels. Tunnelling and Underground Space Technology, 2014, 40, 22-37.	6.2	97
50	Numerical modelling of hydraulic turbomachines: a historical review. IngenierÃa Del Agua, 2014, 18, 15.	0.4	0
51	Numerical methodology for the assessment of relative and absolute deterministic flow structures in the analysis of impellerâ€tongue interactions for centrifugal fans. Computers and Fluids, 2013, 86, 310-325.	2.5	11
52	Novel design and experimental validation of a contraction nozzle for aerodynamic measurements in a subsonic wind tunnel. Journal of Wind Engineering and Industrial Aerodynamics, 2013, 118, 35-43.	3.9	15
53	Effect of Rotor-Stator Configuration in the Generation of Vortical Scales and Wake Mixing in Single Stage Axial Fans: Part II â€ Assessment of Vortex Sound Sources. , 2013, , .		0
54	Effect of Rotor-Stator Configuration in the Generation of Vortical Scales and Wake Mixing in Single Stage Axial Fans: Part I â€ LES Modelling and Experimental Validation. , 2013, , .		1

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55	Noise Prediction in HVAC Squirrel-Cage Fans by Unsteady Reynolds Navier-Stokes Computation. , 2012, , .		0
56	Application of Deterministic Correlations in the Analysis of Rotor-Stator Interactions in Axial Flow Fans. , 2012, , .		1
57	Statistical Procedure to Obtain Accurate Time-Resolved Measurements in Turbomachinery Environments Using Fast-Response Probes. , 2012, , .		0
58	Unsteady numerical simulation of an air-operated piston pump for lubricating greases using dynamic meshes. Computers and Fluids, 2012, 57, 138-150.	2.5	20
59	Numerical simulation of the unsteady stator-rotor interaction in a low-speed axial fan including experimental validation. International Journal of Numerical Methods for Heat and Fluid Flow, 2011, 21, 168-197.	2.8	9
60	Flow Analysis and Deterministic Decoupling in a Squirrel Cage Fan. , 2011, , .		1
61	Enhanced performance of fast-response 3-hole wedge probes for transonic flows in axial turbomachinery. Experiments in Fluids, 2011, 50, 163-177.	2.4	7
62	Numerical modelling and flow analysis of a centrifugal pump running as a turbine: Unsteady flow structures and its effects on the global performance. International Journal for Numerical Methods in Fluids, 2011, 65, 542-562.	1.6	35
63	Noise Prediction in HVAC Squirrel-Cage Fans by Unsteady Reynolds Navier-Stokes Computation. , 2011, , .		1
64	Decomposition of Deterministic Unsteadiness in a Centrifugal Turbomachine: Nonlinear Interactions Between the Impeller Flow and Volute for a Double Suction Pump. Journal of Fluids Engineering, Transactions of the ASME, 2011, 133, .	1.5	12
65	Head geometry effects on pneumatic three-hole pressure probes for wide angular range. Flow Measurement and Instrumentation, 2010, 21, 330-339.	2.0	17
66	A Numerical 3-D Model of a Trapezoidal Three-Hole Pneumatic Pressure Probe for Incompressible Flow. , 2010, , .		1
67	Non-deterministic kinetic energy within the rotor wakes and boundary layers of low-speed axial fans: frequency-based decomposition of unforced unsteadiness and turbulence. Journal of Turbulence, 2009, 10, N28.	1.4	2
68	Numerical prediction of tonal noise generation in an inlet vaned low-speed axial fan using a hybrid aeroacoustic approach. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2009, 223, 2081-2098.	2.1	12
69	Unsteady Modelling of the Tip Clearance Flow in an Inlet Vaned, Low-Speed Axial Fan: Deterministic Interactions of Stator Wakes and Tip Vortex Structures. , 2009, , .		0
70	Influence of the Pressure Load in the Efficiency of a Longitudinal Ventilation System in Road Tunnels. , 2009, , .		0
71	Experimental evaluation of the drag coefficient of water rockets by a simple free-fall test. European Journal of Physics, 2009, 30, 1039-1048.	0.6	14
72	Impact of the tip vortex on the passage flow structures of a jet fan with symmetric blades. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, 2009, 223, 141-155.	1.4	5

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73	Unsteady Flow Patterns for a Double Suction Centrifugal Pump. Journal of Fluids Engineering, Transactions of the ASME, 2009, 131, .	1.5	21
74	Flow analysis for a double suction centrifugal machine in the pump and turbine operation modes. International Journal for Numerical Methods in Fluids, 2009, 61, 220-236.	1.6	29
75	Forced and unforced unsteadiness in an axial turbomachine. Experimental Thermal and Fluid Science, 2009, 33, 449-459.	2.7	8
76	Cylindrical three-hole pressure probe calibration for large angular range. Flow Measurement and Instrumentation, 2009, 20, 57-68.	2.0	22
77	Multiphase Modelling of the Steel Grade Transition in a Continuous Casting Tundish. , 2009, , .		3
78	Numerical Model for the Unsteady Flow Features of a Squirrel Cage Fan. , 2009, , .		3
79	Multiphase modelling of pouring glass over the spout lip of an industrial float in the flat glass forming process. International Journal for Numerical Methods in Fluids, 2008, 58, 1147-1177.	1.6	12
80	Numerical 3D simulation of a longitudinal ventilation system: Memorial Tunnel case. Tunnelling and Underground Space Technology, 2008, 23, 539-551.	6.2	86
81	Turbulence and Secondary Flows in an Axial Flow Fan With Variable Pitch Blades. Journal of Fluids Engineering, Transactions of the ASME, 2008, 130, .	1.5	11
82	Direct calibration framework of triple-hole pressure probes for incompressible flow. Measurement Science and Technology, 2008, 19, 075401.	2.6	8
83	Analysis of the Deterministic Unsteady Flow in a Low-Speed Axial Fan With Inlet Guide Vanes. Journal of Fluids Engineering, Transactions of the ASME, 2008, 130, .	1.5	8
84	Extended Angular Range of a Three-Hole Cobra Pressure Probe for Incompressible Flow. Journal of Fluids Engineering, Transactions of the ASME, 2008, 130, .	1.5	7
85	Unsteady Flow and Wake Transport in a Low-Speed Axial Fan With Inlet Guide Vanes. Journal of Fluids Engineering, Transactions of the ASME, 2007, 129, 1015-1029.	1.5	32
86	On the structure of turbulence in a low-speed axial fan with inlet guide vanes. Experimental Thermal and Fluid Science, 2007, 32, 316-331.	2.7	26
87	Numerical Simulation of the Fuel Oil Cooling Process in a Wrecked Ship. Journal of Fluids Engineering, Transactions of the ASME, 2006, 128, 1390-1393.	1.5	4
88	Tonal Noise Generation in an Inlet Vaned Axial Blower at Several Axial Gaps. , 2006, , 1643.		1
89	Unsteady 3D Simulation of a Jet Fan With Symmetric Blades. , 2006, , 795.		2
90	Upstream Potential Propagation Effects of Unsteady Stator-Rotor Interaction in an Axial Flow Blower: Numerical Analysis and Experimental Validation. , 2006, , .		1

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91	Unsteady Rotor-Stator Interaction in an Axial Flow Blower: Part I " Numerical and Experimental Flow Field Characterization. , 2005, , 1639.		2
92	Unsteady Rotor-Stator Interaction in an Axial Flow Blower: Part II " Deterministic Stresses Analysis. , 2005, , 1649.		1