

Jesus Manuel Fernandez Oro

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4440521/publications.pdf>

Version: 2024-02-01

92
papers

1,128
citations

430874

18
h-index

477307

29
g-index

92
all docs

92
docs citations

92
times ranked

783
citing authors

#	ARTICLE	IF	CITATIONS
1	Numerical modeling of the piston effect in longitudinal ventilation systems for subway tunnels. <i>Tunnelling and Underground Space Technology</i> , 2014, 40, 22-37.	6.2	97
2	Numerical 3D simulation of a longitudinal ventilation system: Memorial Tunnel case. <i>Tunnelling and Underground Space Technology</i> , 2008, 23, 539-551.	6.2	86
3	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
4	Efficiency analysis of underground pumped storage hydropower plants. <i>Journal of Energy Storage</i> , 2020, 28, 101234.	8.1	43
5	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
6	CFD modelling of the cross-flow through normal triangular tube arrays with one tube undergoing forced vibrations or fluidelastic instability. <i>Journal of Fluids and Structures</i> , 2016, 64, 67-86.	3.4	37
7	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
8	Numerical modelling and flow analysis of a centrifugal pump running as a turbine: Unsteady flow structures and its effects on the global performance. <i>International Journal for Numerical Methods in Fluids</i> , 2011, 65, 542-562.	1.6	35
9	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
10	Unsteady Flow and Wake Transport in a Low-Speed Axial Fan With Inlet Guide Vanes. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2007, 129, 1015-1029.	1.5	32
11	Thermal response and failure mode evaluation of a dry-type transformer. <i>Applied Thermal Engineering</i> , 2017, 120, 763-771.	6.0	30
12	Flow analysis for a double suction centrifugal machine in the pump and turbine operation modes. <i>International Journal for Numerical Methods in Fluids</i> , 2009, 61, 220-236.	1.6	29
13	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
14	On the structure of turbulence in a low-speed axial fan with inlet guide vanes. <i>Experimental Thermal and Fluid Science</i> , 2007, 32, 316-331.	2.7	26
15	Cylindrical three-hole pressure probe calibration for large angular range. <i>Flow Measurement and Instrumentation</i> , 2009, 20, 57-68.	2.0	22
16	Unsteady Flow Patterns for a Double Suction Centrifugal Pump. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2009, 131, .	1.5	21
17	Unsteady numerical simulation of an air-operated piston pump for lubricating greases using dynamic meshes. <i>Computers and Fluids</i> , 2012, 57, 138-150.	2.5	20
18	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

#	ARTICLE	IF	CITATIONS
19	Numerical methodology for the CFD simulation of diaphragm volumetric pumps. International Journal of Mechanical Sciences, 2019, 150, 322-336.	6.7	19
20	Unsteady three-dimensional modeling of the Fluid-Structure Interaction in the check valves of diaphragm volumetric pumps. Journal of Fluids and Structures, 2019, 90, 432-449.	3.4	18
21	Application of Richardson extrapolation method to the CFD simulation of vertical-axis wind turbines and analysis of the flow field. Engineering Applications of Computational Fluid Mechanics, 2019, 13, 359-376.	3.1	18
22	Economic Feasibility of Underground Pumped Storage Hydropower Plants Providing Ancillary Services. Applied Sciences (Switzerland), 2020, 10, 3947.	2.5	18
23	Head geometry effects on pneumatic three-hole pressure probes for wide angular range. Flow Measurement and Instrumentation, 2010, 21, 330-339.	2.0	17
24	Transient Simulation of Underground Pumped Storage Hydropower Plants Operating in Pumping Mode. Energies, 2020, 13, 1781.	3.1	16
25	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
26	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
27	Turbulence-Model Comparison for Aerodynamic-Performance Prediction of a Typical Vertical-Axis Wind-Turbine Airfoil. Energies, 2019, 12, 488.	3.1	14
28	Viability of unidirectional radial turbines for twin-turbine configuration of OWC wave energy converters. Ocean Engineering, 2018, 154, 288-297.	4.3	13
29	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. Journal of Energy Storage, 2022, 46, 103816.	8.1	13
30	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
31	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
32	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
33	Turbulence Structure around an Asymmetric High-Lift Airfoil for Different Incidence Angles. Journal of Applied Fluid Mechanics, 2017, 10, 1013-1027.	0.2	12
34	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
35	Numerical methodology for the assessment of relative and absolute deterministic flow structures in the analysis of impeller-tongue interactions for centrifugal fans. Computers and Fluids, 2013, 86, 310-325.	2.5	11
36	Symmetrized dot pattern analysis for the unsteady vibration state in a Sirocco fan unit. Applied Acoustics, 2019, 152, 1-12.	3.3	11

#	ARTICLE	IF	CITATIONS
37	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
38	Numerical simulation of the unsteady stator-rotor interaction in a low-speed axial fan including experimental validation. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2011, 21, 168-197.	2.8	9
39	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
40	Direct calibration framework of triple-hole pressure probes for incompressible flow. <i>Measurement Science and Technology</i> , 2008, 19, 075401.	2.6	8
41	Analysis of the Deterministic Unsteady Flow in a Low-Speed Axial Fan With Inlet Guide Vanes. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2008, 130, .	1.5	8
42	Forced and unforced unsteadiness in an axial turbomachine. <i>Experimental Thermal and Fluid Science</i> , 2009, 33, 449-459.	2.7	8
43	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
44	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
45	Extended Angular Range of a Three-Hole Cobra Pressure Probe for Incompressible Flow. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2008, 130, .	1.5	7
46	Enhanced performance of fast-response 3-hole wedge probes for transonic flows in axial turbomachinery. <i>Experiments in Fluids</i> , 2011, 50, 163-177.	2.4	7
47	Effects of prong-wire interferences in dual hot-wire probes on the measurements of unsteady flows and turbulence in low-speed axial fans. <i>Measurement: Journal of the International Measurement Confederation</i> , 2016, 91, 1-11.	5.0	7
48	An optimized airfoil geometry for vertical-axis wind turbine applications. <i>International Journal of Green Energy</i> , 2020, 17, 181-195.	3.8	7
49	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
50	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
51	Impact of the tip vortex on the passage flow structures of a jet fan with symmetric blades. <i>Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy</i> , 2009, 223, 141-155.	1.4	5
52	Design of a new turbine for OWC wave energy converters: The DDT concept. <i>Renewable Energy</i> , 2021, 169, 404-413.	8.9	5
53	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
54	Numerical Simulation of the Fuel Oil Cooling Process in a Wrecked Ship. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2006, 128, 1390-1393.	1.5	4

#	ARTICLE	IF	CITATIONS
55	Converged statistics for time-resolved measurements in low-speed axial fans using high-frequency response probes. <i>Experimental Thermal and Fluid Science</i> , 2014, 54, 71-84.	2.7	4
56	Flow pattern analysis of an outflow radial turbine for twin-turbines-OWC wave energy converters. <i>Energy</i> , 2020, 211, 118584.	8.8	4
57	CFD Analysis of the Performance of a Double Decker Turbine for Wave Energy Conversion. <i>Energies</i> , 2021, 14, 949.	3.1	4
58	Multiphase Modelling of the Steel Grade Transition in a Continuous Casting Tundish. , 2009, , .		3
59	Numerical Model for the Unsteady Flow Features of a Squirrel Cage Fan. , 2009, , .		3
60	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
61	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
62	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
63	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
64	Unsteady Rotor-Stator Interaction in an Axial Flow Blower: Part I " Numerical and Experimental Flow Field Characterization. , 2005, , 1639.		2
65	Unsteady 3D Simulation of a Jet Fan With Symmetric Blades. , 2006, , 795.		2
66	Non-deterministic kinetic energy within the rotor wakes and boundary layers of low-speed axial fans: frequency-based decomposition of unforced unsteadiness and turbulence. <i>Journal of Turbulence</i> , 2009, 10, N28.	1.4	2
67	Purified orbit diagram and numerical study for a failure analysis of a Sirocco fan. <i>Advances in Mechanical Engineering</i> , 2017, 9, 168781401773343.	1.6	2
68	Aerodynamic Design of a Small-Scale Model of a Vertical Axis Wind Turbine. <i>Proceedings (mdpi)</i> , 2018, 2, .	0.2	2
69	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
70	Unsteady Rotor-Stator Interaction in an Axial Flow Blower: Part II " Deterministic Stresses Analysis. , 2005, , 1649.		1
71	Tonal Noise Generation in an Inlet Vaned Axial Blower at Several Axial Gaps. , 2006, , 1643.		1
72	A Numerical 3-D Model of a Trapezoidal Three-Hole Pneumatic Pressure Probe for Incompressible Flow. , 2010, , .		1

#	ARTICLE	IF	CITATIONS
73	Flow Analysis and Deterministic Decoupling in a Squirrel Cage Fan. , 2011, , .		1
74	Noise Prediction in HVAC Squirrel-Cage Fans by Unsteady Reynolds Navier-Stokes Computation. , 2011, , .		1
75	Application of Deterministic Correlations in the Analysis of Rotor-Stator Interactions in Axial Flow Fans. , 2012, , .		1
76	Effect of Rotor-Stator Configuration in the Generation of Vortical Scales and Wake Mixing in Single Stage Axial Fans: Part I " LES Modelling and Experimental Validation. , 2013, , .		1
77	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
78	Upstream Potential Propagation Effects of Unsteady Stator-Rotor Interaction in an Axial Flow Blower: Numerical Analysis and Experimental Validation. , 2006, , .		1
79	Analytical models for adiabatic compressed air energy storage (A-CAES) systems in lined tunnels. IOP Conference Series: Earth and Environmental Science, 2021, 897, 012008.	0.3	1
80	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
81	Influence of the Pressure Load in the Efficiency of a Longitudinal Ventilation System in Road Tunnels. , 2009, , .		0
82	Noise Prediction in HVAC Squirrel-Cage Fans by Unsteady Reynolds Navier-Stokes Computation. , 2012, , .		0
83	Statistical Procedure to Obtain Accurate Time-Resolved Measurements in Turbomachinery Environments Using Fast-Response Probes. , 2012, , .		0
84	Effect of Rotor-Stator Configuration in the Generation of Vortical Scales and Wake Mixing in Single Stage Axial Fans: Part II " Assessment of Vortex Sound Sources. , 2013, , .		0
85	Fault Diagnosis Technique for a Squirrel Cage Fan Using Vibration Analysis Signals. , 2014, , .		0
86	Turbulence Transport in Rotor-Stator and Stator-Rotor Stages of Axial Flow Fans. , 2017, , .		0
87	Performance Curve of a Radial Flow Turbine for an OWC Plant. Proceedings (mdpi), 2018, 2, .	0.2	0
88	Wells Turbine With Variable Blade Profile for Wave Energy Conversion. , 2018, , .		0
89	Deterministic Decomposition of the Unsteady Flow in a Unidirectional Axial Turbine for OWC Plant. , 2018, , .		0
90	Proposal of an Optimized Airfoil Geometry for Vertical-Axis Wind Turbine Applications. Proceedings (mdpi), 2018, 2, .	0.2	0

#	ARTICLE	IF	CITATIONS
91	Mathematical formulation for the analysis of the periodic convergence during co-processing routines in long-run, scale-resolving simulations of turbomachinery. Progress in Computational Fluid Dynamics, 2021, 21, 141.	0.2	0
92	Numerical modelling of hydraulic turbomachines: a historical review. IngenierÃa Del Agua, 2014, 18, 15.	0.4	0