Alessio Suman

List of Publications by Year
in descending order

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100	958	516710	610901
papers	citations	16	24
		h-index	g-index

101	101	101	447
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Experimental analysis of a micro-ORC driven by piston expander for low-grade heat recovery. Applied Thermal Engineering, 2019, 148, 1278-1291.	6.0	58
2	Analysis of a scroll machine for micro ORC applications by means of a RE/CFD methodology. Applied Thermal Engineering, 2015, 80, 132-140.	6.0	45
3	A Compressor Fouling Review Based on an Historical Survey of ASME Turbo Expo Papers. Journal of Turbomachinery, 2017, 139, .	1.7	40
4	A numerical method for the efficient design of free opening hoods in industrial and domestic applications. Energy, 2014, 74, 484-493.	8.8	38
5	Performance Evaluation of Nonuniformly Fouled Axial Compressor Stages by Means of Computational Fluid Dynamics Analyses. Journal of Turbomachinery, 2014, 136, .	1.7	37
6	Generalization of particle impact behavior in gas turbine via non-dimensional grouping. Progress in Energy and Combustion Science, 2019, 74, 103-151.	31.2	34
7	Morphing blades with embedded SMA strips: An experimental investigation. Materials and Design, 2015, 85, 785-795.	7.0	30
8	Comparison of a Single-screw and a Scroll Expander under Part-load Conditions for Low-grade Heat Recovery ORC Systems. Energy Procedia, 2014, 61, 117-120.	1.8	27
9	Quantitative Computational Fluid Dynamics Analyses of Particle Deposition on a Transonic Axial Compressor Bladeâ€"Part I: Particle Zones Impact. Journal of Turbomachinery, 2015, 137, .	1.7	25
10	Gas Turbine Fouling Tests: Review, Critical Analysis, and Particle Impact Behavior Map. Journal of Engineering for Gas Turbines and Power, 2019, 141, .	1.1	24
11	Experimental Investigation of Stall and Surge in a Multistage Compressor. Journal of Engineering for Gas Turbines and Power, 2017, 139, .	1.1	22
12	Experimental Performance of a Micro-ORC Energy System for Low Grade Heat Recovery. Energy Procedia, 2017, 129, 899-906.	1.8	21
13	Experimental analysis of micro-sized particles time-wise adhesion: the influence of impact velocity and surface roughness. International Journal of Heat and Mass Transfer, 2021, 165, 120632.	4.8	21
14	EBFOG: Deposition, Erosion, and Detachment on High-Pressure Turbine Vanes. Journal of Turbomachinery, 2018, 140, .	1.7	20
15	CFD-based optimization of scroll compressor design and uncertainty quantification of the performance under geometrical variations. Energy, 2020, 209, 118382.	8.8	19
16	Quantitative Computational Fluid Dynamic Analyses of Particle Deposition on a Transonic Axial Compressor Bladeâ€"Part II: Impact Kinematics and Particle Sticking Analysis. Journal of Turbomachinery, 2015, 137, .	1.7	18
17	Experimental Investigation of Stall and Surge in a Multistage Compressor. , 2016, , .		17
18	Numerical Analysis of the Effects of Surface Roughness Localization on the Performance of an Axial Compressor Stage. Energy Procedia, 2014, 45, 1057-1066.	1.8	16

#	Article	IF	Citations
19	CFD Analysis of a Non-newtonian Fluids Processing Pump. Energy Procedia, 2016, 101, 742-749.	1.8	15
20	Experimental and Numerical Analysis of a Non-Newtonian Fluids Processing Pump. Energy Procedia, 2017, 126, 762-769.	1.8	15
21	Different Numerical Approaches for the Analysis of a Single Screw Expander. Energy Procedia, 2016, 101, 750-757.	1.8	14
22	An Energy-Based Fouling Model for Gas Turbines: EBFOG. Journal of Turbomachinery, 2017, 139, .	1.7	14
23	Pressure Pulsation and Cavitation Phenomena in a Micro-ORC System. Energies, 2019, 12, 2186.	3.1	14
24	A Micro-ORC Energy System: Preliminary Performance and Test Bench Development. Energy Procedia, 2016, 101, 814-821.	1.8	13
25	Quantitative Computational Fluid Dynamics Analyses of Particle Deposition on a Subsonic Axial Compressor Blade. Journal of Engineering for Gas Turbines and Power, 2016, 138, .	1.1	13
26	Investigation of flow characteristics in a single screw expander: A numerical approach. Energy, 2020, 213, 118730.	8.8	13
27	A Shape Memory Alloy-Based Morphing Axial Fan Bladeâ€”Part I: Blade Structure Design and Functional Characterization. Journal of Engineering for Gas Turbines and Power, 2016, 138, .	1.1	12
28	Deposition of syngas tar in fuel supplying duct of a biomass gasifier: A numerical study. Fuel, 2020, 273, 117579.	6.4	12
29	Deposition Pattern Analysis on a Fouled Multistage Test Compressor. Journal of Engineering for Gas Turbines and Power, 2021, 143, .	1.1	12
30	Computational Fluid Dynamics Modeling of Gaseous Cavitation in Lubricating Vane Pumps: An Approach Based on Dimensional Analysis. Journal of Fluids Engineering, Transactions of the ASME, 2020, 142, .	1.5	12
31	A Shape Memory Alloy-based Morphing Axial Fan Blade: Functional Characterization and Perspectives. Energy Procedia, 2015, 82, 273-279.	1.8	11
32	Analysis of Timewise Compressor Fouling Phenomenon on a Multistage Test Compressor: Performance Losses and Particle Adhesion1. Journal of Engineering for Gas Turbines and Power, 2021, 143, .	1.1	11
33	Estimation of the Particle Deposition on a Transonic Axial Compressor Blade. Journal of Engineering for Gas Turbines and Power, 2016, 138, .	1.1	10
34	Dust Ingestion in a Rotorcraft Engine Compressor: Experimental and Numerical Study of the Fouling Rate. Aerospace, 2021, 8, 81.	2.2	10
35	Microstructural and Erosive Wear Characteristics of a High Chromium Cast Iron. Coatings, 2021, 11, 490.	2.6	10
36	A Shape Memory Alloy-Based Morphing Axial Fan Bladeâ€”Part II: Blade Shape and Computational Fluid Dynamics Analyses. Journal of Engineering for Gas Turbines and Power, 2016, 138, .	1.1	9

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37	Estimation of the Particle Deposition on a Subsonic Axial Compressor Blade. Journal of Engineering for Gas Turbines and Power, 2017, 139, .	1.1	9
38	Computational Models for the Analysis of positive displacement machines: Real Gas and Dynamic Mesh. Energy Procedia, 2017, 129, 411-418.	1.8	9
39	Performance Degradation Due to Fouling and Recovery After Washing in a Multistage Test Compressor. Journal of Engineering for Gas Turbines and Power, 2021, 143, .	1.1	9
40	Structured Mesh Generation and Numerical Analysis of a Scroll Expander in an Open-Source Environment. Energies, 2020, 13, 666.	3.1	9
41	Thermal and fluid dynamic analysis of an air-forced convection rotary bread-baking oven by means of an experimental and numerical approach. Applied Thermal Engineering, 2017, 117, 330-342.	6.0	8
42	Measurement approaches for the analysis of soil layer by microparticle adhesion. Measurement: Journal of the International Measurement Confederation, 2022, 187, 110185.	5.0	8
43	Experimental and Numerical Characterization of an Oil-Free Scroll Expander. Energy Procedia, 2017, 129, 403-410.	1.8	7
44	EBFOG: Deposition, Erosion and Detachment on High Pressure Turbine Vanes. , 2017, , .		7
45	CoolFOAM: The CoolProp wrapper for OpenFOAM. Computer Physics Communications, 2020, 250, 107047.	7.5	7
46	Analysis of soil and soot deposits by X-ray computed microtomography. Powder Technology, 2021, 394, 608-621.	4.2	7
47	Outstretching population growth theory towards surface contamination. Powder Technology, 2021, 394, 597-607.	4.2	7
48	A Shape Memory Alloy-Based Morphing Axial Fan Blade: Part II â€" Blade Shape and CFD Analyses. , 2015, , .		6
49	Using shape memory alloys for improving automotive fan blade performance: experimental and computational fluid dynamics analysis. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, 2015, 229, 477-486.	1.4	6
50	An Innovative Method for the Evaluation of Particle Deposition Accounting for Rotor/Stator Interaction. Journal of Engineering for Gas Turbines and Power, 2017, 139, .	1.1	6
51	Experimental Investigation with Steady-State Detection in a Micro-ORC Test Bench. Energy Procedia, 2017, 126, 469-476.	1.8	6
52	Analysis of the Aerodynamic and Structural Performance of a Cooling Fan with Morphing Blade. International Journal of Turbomachinery, Propulsion and Power, 2017, 2, 7.	1.1	6
53	On the design strategies for SMA-based morphing actuators: state of the art and common practices applied to a fascinating case study. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2020, 234, 2114-2130.	1.3	6
54	ASSESSMENT OF THE WASHING EFFECTIVENESS OF ON-PURPOSE DESIGNED ECO-FRIENDLY CLEANER AGAINST SOOT DEPOSITS. Journal of the Global Power and Propulsion Society, 2020, 4, 253-263.	0.8	6

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55	Quantitative CFD Analyses of Particle Deposition on a Transonic Axial Compressor Blade: Part I â€" Particle Zones Impact. , 2014, , .		5
56	Centrifugal pumps performance estimation with non-Newtonian fluids: review and critical analysis. , 2017, , .		5
57	Quantitative CFD Analyses of Particle Deposition on a Transonic Axial Compressor Blade: Part II â€" Impact Kinematics and Particle Sticking Analysis. , 2014, , .		4
58	An Energy Based Fouling Model for Gas Turbines: EBFOG. , 2016, , .		4
59	Eco-design of a small size industrial fan for ceramic tile cooling. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, 2016, 230, 502-511.	1.4	4
60	Quantitative Computational Fluid Dynamics Analyses of Particle Deposition in a Heavy-Duty Subsonic Axial Compressor. Journal of Engineering for Gas Turbines and Power, 2018, 140, .	1.1	4
61	An experimentally-driven approach to model bending in a thermally activated SMA-based beam. Smart Materials and Structures, 2018, 27, 125004.	3.5	4
62	Design Multistage External Gear Pumps for Dry Sump Systems: Methodology and Application. Mathematical Problems in Engineering, 2021, 2021, 1-11.	1.1	4
63	A Stochastic Model for Nanoparticle Deposits Growth. Journal of Engineering for Gas Turbines and Power, 2022, 144, .	1.1	4
64	An Interdisciplinary Approach to Study the Fouling Phenomenon. Energy Procedia, 2015, 82, 280-285.	1.8	3
65	Quantitative CFD Analyses of Particle Deposition on a Subsonic Axial Compressor Blade. , 2015, , .		3
66	An Innovative Method for the Evaluation of Particle Deposition Accounting for the Rotor/Stator Interaction. , 2016, , .		3
67	Real Gas Expansion with Dynamic Mesh in Common Positive Displacement Machines. Energy Procedia, 2017, 129, 248-255.	1.8	3
68	The Effects of Third Substances at the Particle/Surface Interface in Compressor Fouling. , 2017, , .		3
69	Reducing pressure valve with real gases: an integrated approach for the design. Energy Procedia, 2018, 148, 607-614.	1.8	3
70	Analysis of CoolProp library for the assessment of uncertainty propagation for refrigerant fluids in state diagrams and thermodynamic properties. International Journal of Refrigeration, 2019, 107, 214-224.	3.4	3
71	Numerical investigation of oil injection in a Roots blower operated as expander. IOP Conference Series: Materials Science and Engineering, 2019, 604, 012075.	0.6	3
72	Optical measurements based on practical methods for detecting time-wise morphing structures. Measurement: Journal of the International Measurement Confederation, 2019, 136, 454-465.	5.0	3

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73	PROGRESSES IN PARTICLE-LADEN FLOWS SIMULATIONS IN MULTISTAGE TURBOMACHINERY WITH OPENFOAM. Journal of Turbomachinery, 0, , 1-19.	1.7	3
74	A Simplified Method for the Deposition Rate Assessment on the Vanes of a Multistage Axial-Flow Compressor. Journal of Turbomachinery, 2022, 144, .	1.7	3
75	Performance Evaluation of Non-Uniformly Fouled Axial Compressor Stages by Means of Computational Fluid Dynamic Analyses. , 2013, , .		2
76	Estimation of the Particle Deposition on a Transonic Axial Compressor Blade. , 2015, , .		2
77	Quantitative CFD Analyses of Particle Deposition in a Heavy-Duty Subsonic Axial Compressor. , 2017, , .		2
78	Full 3D numerical analysis of a twin screw compressor by employing open-source software. IOP Conference Series: Materials Science and Engineering, 2018, 425, 012017.	0.6	2
79	Gas Turbine Fouling: A Comparison Among 100 Heavy-Duty Frames. Journal of Engineering for Gas Turbines and Power, 2019, 141, .	1.1	2
80	Experimental Assessment of Fouling Effects in a Multistage Axial Compressor. E3S Web of Conferences, 2020, 197, 11007.	0.5	2
81	CFD Simulations of Single- and Twin-Screw Machines with OpenFOAM. Designs, 2020, 4, 2.	2.4	2
82	Combining lumped parameter modelling and CFD analysis for the pressure ripple estimation of tandem gear pumps. , 2019, , 369-397.		2
83	Performance Degradation of a Shell-and-Tube Heat Exchanger Due to Tar Deposition. Energies, 2022, 15, 1490.	3.1	2
84	Numerical Simulation of Evacuated Tube Solar Water Heaters. , 2012, , .		1
85	Cross Validation of Multistage Compressor Map Generation by Means of Computational Fluid Dynamics and Stage-Stacking Techniques. , 2014, , .		1
86	A Shape Memory Alloy-Based Morphing Axial Fan Blade: Part I â€" Blade Structure Design and Functional Characterization. , 2015, , .		1
87	A Shape Memory Alloy-Based Morphing Axial Fan Blade: Functional Characterization and Fluid Dynamic Performance. , 2016, , .		1
88	Estimation of the Particle Deposition on a Subsonic Axial Compressor Blade. , 2016, , .		1
89	Numerical Investigation of a Wood-Chip Downdraft Gasifier. E3S Web of Conferences, 2019, 113, 01002.	0.5	1
90	Performance losses and washing recovery of a helicopter engine compressor operating in ground-idle conditions. CEAS Aeronautical Journal, 2022, 13, 113-125.	1.7	1

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91	Gas Turbine Fouling: A Comparison Among One Hundred Heavy-Duty Frames. , 2018, , .		0
92	A strategy for the robust forecasting of gas turbine health subjected to fouling. E3S Web of Conferences, 2021, 312, 11002.	0.5	0
93	Off-line washing effectiveness on a multistage axial compressor. E3S Web of Conferences, 2021, 312, 11016.	0.5	0
94	Porosity Driven Approaches to Model Fouling Effects on Flow Field. , 2019, , .		0
95	Gas Turbine Fouling: The Influence of Climate and Part-Load Operating Conditions. , 2019, , .		0
96	A Non-Dimensional Approach for Generalizing the Particle Impact Behavior of Gas Turbine Fouling. , 2019, , .		0
97	Experimental Tests With Centrifugal Pumps: Degradation of Performance, Instability and Dynamic Phenomena With Non-Newtonian Suspensions of Kaolin in Water. , 2019, , .		0
98	Numerical Simulations of a Centrifugal Pump With a Non-Newtonian Fluid: Influence on Performances of Different Rheological Modelling. , 2019, , .		0
99	Porosity-Driven Approaches to Model Fouling Effects on Flow Field. Journal of Turbomachinery, 2020, 142, .	1.7	0
100	Design considerations and numerical simulations of variable thickness scroll geometries. , 2022, , .		0