

Alessandro Corsini

List of Publications by Year in descending order

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128
papers

1,496
citations

331670

21
h-index

377865

34
g-index

129
all docs

129
docs citations

129
times ranked

797
citing authors

#	ARTICLE	IF	CITATIONS
1	Finite element computation of turbulent flows with the discontinuity-capturing directional dissipation (DCDD). <i>Computers and Fluids</i> , 2007, 36, 121-126.	2.5	90
2	Improved Discontinuity-capturing Finite Element Techniques for Reaction Effects in Turbulence Computation. <i>Computational Mechanics</i> , 2006, 38, 356-364.	4.0	74
3	Vegetable Oils as Fuels in Diesel Engine. <i>Engine Performance and Emissions. Energy Procedia</i> , 2015, 81, 942-949.	1.8	69
4	Particle tracking and particle–shock interaction in compressible-flow computations with the V-SGS stabilization and Δ^2 shock-capturing. <i>Computational Mechanics</i> , 2015, 55, 1201-1209.	4.0	65
5	On the Role of Leading-Edge Bumps in the Control of Stall Onset in Axial Fan Blades. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2013, 135, .	1.5	63
6	A DRD finite element formulation for computing turbulent reacting flows in gas turbine combustors. <i>Computational Mechanics</i> , 2010, 46, 159-167.	4.0	61
7	Computational analysis of wind-turbine blade rain erosion. <i>Computers and Fluids</i> , 2016, 141, 175-183.	2.5	61
8	Computation of inviscid compressible flows with the V-SGS stabilization and Δ^2 shock-capturing. <i>International Journal for Numerical Methods in Fluids</i> , 2007, 54, 695-706.	1.6	56
9	Computational analysis of noise reduction devices in axial fans with stabilized finite element formulations. <i>Computational Mechanics</i> , 2012, 50, 695-705.	4.0	45
10	A variational multiscale method for particle-cloud tracking in turbomachinery flows. <i>Computational Mechanics</i> , 2014, 54, 1191-1202.	4.0	45
11	A variational multiscale higher-order finite element formulation for turbomachinery flow computations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2005, 194, 4797-4823.	6.6	40
12	A stabilized ALE method for computational fluid–structure interaction analysis of passive morphing in turbomachinery. <i>Mathematical Models and Methods in Applied Sciences</i> , 2019, 29, 967-994.	3.3	40
13	Computational analysis of performance deterioration of a wind turbine blade strip subjected to environmental erosion. <i>Computational Mechanics</i> , 2019, 64, 1133-1153.	4.0	37
14	Assessment of H ₂ - and H ₂ O-based renewable energy-buffering systems in minor islands. <i>Renewable Energy</i> , 2009, 34, 279-288.	8.9	30
15	A finite element overlapping scheme for turbomachinery flows on parallel platforms. <i>Computers and Fluids</i> , 2003, 32, 1017-1047.	2.5	29
16	Flow analyses in a high-pressure axial ventilation fan with a non-linear eddy-viscosity closure. <i>International Journal of Heat and Fluid Flow</i> , 2005, 26, 349-361.	2.4	29
17	Predicting Blade Leading Edge Erosion in an Axial Induced Draft Fan. <i>Journal of Engineering for Gas Turbines and Power</i> , 2012, 134, .	1.1	28
18	Deep anomaly detection in horizontal axis wind turbines using Graph Convolutional Autoencoders for Multivariate Time series. <i>Energy and AI</i> , 2022, 8, 100145.	10.6	28

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19	The application of sinusoidal blade-leading edges in a fan-design methodology to improve stall resistance. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, 2014, 228, 255-271.	1.4	25
20	Preliminary Assessment of Wave Energy Use in an Off-grid Minor Island Desalination Plant. Energy Procedia, 2015, 82, 789-796.	1.8	23
21	Experimental and computational investigation of a new solar integrated collector storage system. Applied Energy, 2012, 97, 982-989.	10.1	22
22	Stall Warning in a Low-Speed Axial Fan by Visualization of Sound Signals. Journal of Engineering for Gas Turbines and Power, 2011, 133, .	1.1	21
23	Numerical Simulation of Coal Fly-Ash Erosion in an Induced Draft Fan. Journal of Fluids Engineering, Transactions of the ASME, 2013, 135, .	1.5	21
24	A Critical Review of Stall Control Techniques in Industrial Fans. ISRN Mechanical Engineering, 2013, 2013, 1-18.	0.9	21
25	Industrial Energy Management Systems in Italy: State of the Art and Perspective. Energy Procedia, 2015, 82, 562-569.	1.8	21
26	Aerodynamic Performance of Blade Tip End-Plates Designed for Low-Noise Operation in Axial Flow Fans. Journal of Fluids Engineering, Transactions of the ASME, 2009, 131, .	1.5	18
27	Shaping of Tip End-Plate to Control Leakage Vortex Swirl in Axial Flow Fans. Journal of Turbomachinery, 2010, 132, .	1.7	18
28	Modeling of Rain Drop Erosion in a Multi-MW Wind Turbine. , 2015, , .		18
29	Flow analysis of a wave-energy air turbine with the SUPG/PSPG stabilization and Discontinuity-Capturing Directional Dissipation. Computers and Fluids, 2016, 141, 184-190.	2.5	18
30	SUPG/PSPG Computational Analysis of Rain Erosion in Wind-Turbine Blades. Modeling and Simulation in Science, Engineering and Technology, 2016, , 77-96.	0.6	14
31	A Critical Review of Computational Methods and Their Application in Industrial Fan Design. ISRN Mechanical Engineering, 2013, 2013, 1-20.	0.9	13
32	Numerical Simulation of the Blade Aging Process in an Induced Draft Fan Due to Long Time Exposition to Fly Ash Particles. Journal of Engineering for Gas Turbines and Power, 2019, 141, .	1.1	13
33	Large-Eddy Simulation of a Tunnel Ventilation Fan. Journal of Fluids Engineering, Transactions of the ASME, 2013, 135, .	1.5	12
34	Demonstration of a stall detection system for induced draft fans. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, 2013, 227, 272-284.	1.4	12
35	Optimization of an axial fan for air cooled condensers. Energy Procedia, 2017, 126, 754-761.	1.8	11
36	Computational analysis of particle-laden-airflow erosion and experimental verification. Computational Mechanics, 2020, 65, 1549-1565.	4.0	11

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37	Stall Inception, Evolution and Control in a Low Speed Axial Fan With Variable Pitch in Motion. Journal of Engineering for Gas Turbines and Power, 2012, 134, .	1.1	10
38	A Critical Review of Passive Noise Control Techniques in Industrial Fans. Journal of Engineering for Gas Turbines and Power, 2014, 136, .	1.1	10
39	Simulation of Particle-Laden Flows in a Large Centrifugal Fan for Erosion Prediction. , 2014, , .		10
40	Pollutant Emissions in Common-rail Diesel Engines in Extraurban Cycle: Rapeseed Oils vs Diesel Fuel. Energy Procedia, 2015, 82, 141-148.	1.8	10
41	Performance Analysis of a Common-rail Diesel Engine Fuelled with Different Blends of Waste Cooking oil and Gasoil. Energy Procedia, 2016, 101, 606-613.	1.8	10
42	Experimental development of a measurement technique to resolve the radial distribution of fan aero-acoustic emissions. Noise Control Engineering Journal, 2009, 57, 360.	0.3	9
43	A Co-Powered Biomass and Concentrated Solar Power Rankine Cycle Concept for Small Size Combined Heat and Power Generation. Energies, 2013, 6, 1478-1496.	3.1	9
44	Predicting the Performance of an Industrial Centrifugal Fan Incorporating Cambered Plate Impeller Blades. Periodica Polytechnica, Mechanical Engineering, 2014, 58, 15-25.	1.4	9
45	A CFD-based Virtual Test-rig for Rotating Heat Exchangers. Energy Procedia, 2015, 82, 245-251.	1.8	9
46	Sea-Water Desalination for Load Levelling of Gen-Sets in Small Off-Grid Islands. Energies, 2018, 11, 2068.	3.1	9
47	Modelling of Particle Transport, Erosion and Deposition in Power Plant Gas Paths. , 2016, , .		8
48	Numerical Simulation With Adaptive Boundary Method for Predicting Time Evolution of Erosion Processes. , 2017, , .		8
49	Machine learnt prediction method for rain erosion damage on wind turbine blades. Wind Energy, 2021, 24, 917-934.	4.2	8
50	Anomaly Detection in Photovoltaic Production Factories via Monte Carlo Pre-Processed Principal Component Analysis. Energies, 2021, 14, 3951.	3.1	8
51	End-plate for noise-by-flow control in axial fans. Periodica Polytechnica, Mechanical Engineering, 2013, 57, 3.	1.4	7
52	Assessment of a Diagnostic Procedure for the Monitoring and Control of Industrial Processes. Energy Procedia, 2015, 75, 1772-1778.	1.8	7
53	Investigation on Improved Blade Tip Concept for Axial Flow Fan. , 2006, , 313.		6
54	Aerodynamic Workings of Blade Tip End-Plates Designed for Low-Noise Operation in Axial Flow Fans. , 2007, , 159.		6

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55	Leading Edge Bumps in Ventilation Fans. , 2013, , .		6
56	A numerical investigation into the aerodynamic effect of pressure pulses on a tunnel ventilation fan. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, 2014, 228, 285-299.	1.4	6
57	On Surrogate-Based Optimization of Truly Reversible Blade Profiles for Axial Fans. Designs, 2018, 2, 19.	2.4	6
58	Complex Network Analysis of Photovoltaic Plant Operations and Failure Modes. Energies, 2019, 12, 1995.	3.1	6
59	Time Series Clustering: A Complex Network-Based Approach for Feature Selection in Multi-Sensor Data. Modelling, 2020, 1, 1-21.	1.4	6
60	Assessment of Renewable Energy Solutions in an Italian Small Island Energy System Using a Transient Simulation Model. Journal of Solar Energy Engineering, Transactions of the ASME, 2006, 128, 237-244.	1.8	5
61	Detection of Stall Regions in a Low-Speed Axial Fan: Part I – Azimuthal Acoustic Measurements. , 2010, , .		5
62	Far-Field Radiation of Tip Aerodynamic Sound Sources in Axial Fans Fitted With Passive Noise Control Features. Journal of Vibration, Acoustics, Stress, and Reliability in Design, 2011, 133, 051001.	2.0	5
63	Internal Combustion Engine sensor network analysis using graph modeling. Energy Procedia, 2017, 126, 907-914.	1.8	5
64	Anisotropic Turbulence Modelling of Near Wall Effects Pertinent to Turbomachinery Flows. , 2002, , 963.		4
65	Experimental Aeroacoustic Studies on Improved Tip Configurations for Passive Control of Noise Signatures in Low-Speed Axial Fans. Journal of Vibration and Acoustics, Transactions of the ASME, 2009, 131, .	1.6	4
66	Multivariate KPI for Energy Management of Cooling Systems in Food Industry. Energy Procedia, 2016, 101, 297-304.	1.8	4
67	Design of a Single Stage Variable Pitch Axial Fan. , 2017, , .		4
68	The influence of water desalination systems on load levelling of gen-set in small off-grid islands. Energy Procedia, 2017, 142, 2230-2235.	1.8	4
69	Design of a Tip Appendage for the Control of Tip Leakage Vortices in Axial Flow Fans. Journal of Turbomachinery, 2021, 143, .	1.7	4
70	Simulation of the Deposit Evolution on a Fan Blade for Tunnel Ventilation. Journal of Engineering for Gas Turbines and Power, 2020, 142, .	1.1	4
71	Experimental Aeroacoustic Studies on Improved Tip Geometries for Passive Noise Signature Control in Low-Speed Axial Fan. , 2008, , .		3
72	The Impact of an Anti-Stall Stabilisation Ring on Industrial Fan Performance: Implications for Fan Selection. , 2011, , .		3

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73	Experiments on the Use of Signal Visualization Technique for In-Service Stall Detection in Industrial Fans. <i>Advances in Acoustics and Vibration</i> , 2013, 2013, 1-10.	0.5	3
74	Flow Survey of a Forward Curved Blades Centrifugal Fan for HVAC Applications. , 2016, , .		3
75	Implementation of an acoustic stall detection system using near-field DIY pressure sensors. <i>Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy</i> , 2016, 230, 487-501.	1.4	3
76	Development and Validation of a Novel Synthetic Blade Model for Axial Flow Fans in Unsteady CFD. , 2017, , .		3
77	Gen-Set Control in Stand-Alone/RES Integrated Power Systems. <i>Energies</i> , 2019, 12, 3353.	3.1	3
78	Shaping of Tip End-Plate to Control Leakage Vortex Swirl in Axial Flow Fans. , 2008, , .		2
79	Stall Inception, Evolution and Control in a Low Speed Axial Fan With Variable Pitch in Motion. , 2011, , .		2
80	Aerodynamic Simulation of a High-Pressure Centrifugal Fan for Process Industries. , 2013, , .		2
81	Investigation on Anti-Stall Ring Aerodynamic Performance in an Axial Flow Fan. , 2014, , .		2
82	Multivariate Key Performance Indicator of Baking Process. <i>Energy Procedia</i> , 2015, 82, 554-561.	1.8	2
83	Unsteady End-wall Pressure Measurements Using Near-field DIY Sensors on Fouled Fan Rotor Blades. <i>Energy Procedia</i> , 2015, 82, 237-244.	1.8	2
84	Derivative Design of Axial Fan Range: From Academia to Industry. , 2016, , .		2
85	Numerical Testing of a Trailing Edge Passive Morphing Control for Large Axial Fan Blades. <i>Journal of Engineering for Gas Turbines and Power</i> , 2018, 140, .	1.1	2
86	Numerical Simulation of the Blade Aging Process in an Induced Draft Fan due to Long Time Exposition to Fly Ash Particles. , 2018, , .		2
87	A Meta-Model for Aerodynamic Properties of a Reversible Profile in Cascade With Variable Stagger and Solidity. , 2018, , .		2
88	Assessment of MULTALL as Computational Fluid Dynamics Code for the Analysis of Tube-Axial Fans. <i>Journal of Turbomachinery</i> , 2021, 143, .	1.7	2
89	Flow Analysis of a Wave-Energy Air Turbine with the SUPG/PSPG Method and DCDD. <i>Modeling and Simulation in Science, Engineering and Technology</i> , 2016, , 39-53.	0.6	2
90	Assessment of a Machine-Learnt Adaptive Wall-Function in a Compressor Cascade With Sinusoidal Leading Edge. <i>Journal of Engineering for Gas Turbines and Power</i> , 2020, 142, .	1.1	2

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91	Numerical investigation of CSP air cooled condenser fan. E3S Web of Conferences, 2020, 197, 11010.	0.5	2
92	Quadratic Petrov-Galerkin finite elements for advective-reactive features in turbomachinery CFD. International Journal of Numerical Methods for Heat and Fluid Flow, 2005, 15, 894-925.	2.8	1
93	Large-Eddy Simulation of the Aerodynamic and Aero-Acoustic Performance of an Industrial Fan Designed for Tunnel Ventilation. , 2012, , .		1
94	Numerical Simulation of Coal Fly-Ash Erosion in an Induced Draft Fan. , 2012, , .		1
95	Experimental study on the self-noise of a turbulent round jet investing a cambered aerofoil. Periodica Polytechnica, Mechanical Engineering, 2013, 57, 45.	1.4	1
96	Numerical Assessment of Fan-Ducting Coupling for Gas Turbine Ventilation Systems. , 2015, , .		1
97	Unsteady Pressure Interaction of an Axial Flow Fan With a Stabilization Ring in Tunnel and Metro Applications. , 2015, , .		1
98	FSI analysis and simulation of flexible blades in a Wells turbine for wave energy conversion. E3S Web of Conferences, 2020, 197, 11008.	0.5	1
99	Machine-learnt topology of complex tip geometries in gas turbine rotors. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, 2021, 235, 383-392.	1.4	1
100	Assessment of a Machine-Learnt Adaptive Wall-Function in a Compressor Cascade With Sinusoidal Leading Edge. , 2019, , .		1
101	Simulation of the Deposit Evolution on a Fan Blade for Tunnel Ventilation. , 2019, , .		1
102	Energy profiling of end-users in service and industry sectors with use of Complex Network Analysis. E3S Web of Conferences, 2021, 312, 10001.	0.5	1
103	A Multi-Dimensional Extension of Balje Chart for Axial Flow Turbomachinery Using Artificial Intelligence Based Meta-Models. , 2019, , .		1
104	MORPHING OF REVERSIBLE AXIAL FAN BLADE: A FSI-FEM STUDY. Journal of Turbomachinery, 0, , 1-9.	1.7	1
105	The Aerodynamic Interaction of Tip Leakage and Mainstream Flows in a Fully-Ducted Axial Fan. , 2004, , 405.		0
106	Near Field Aeroacoustic Experimental Investigation in Low Speed Axial Fans. , 2008, , .		0
107	Far-Field Radiation of Aerodynamic Sound Sources in Axial Fans Fitted With Passive Noise Control Features. , 2009, , .		0
108	Detection of Stall Regions in a Low-Speed Axial Fan: Part II – Stall Warning by Visualisation of Sound Signals. , 2010, , .		0

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109	Predicting Blade Leading Edge Erosion in an Axial Induced Draft Fan. , 2011, , .		0
110	Stall Control and Recovery in a Low-Speed Axial Fan Through the Use of Variable Pitch in Motion Blades. , 2012, , .		0
111	Numerical Modelling of Erosion in Highly-Loaded Axial Flow Fans. , 2012, , .		0
112	Synergistic Noise-By-Flow Control Design of Blade-Tip in Axial Fans: Experimental Investigation. , 2012, , .		0
113	A Critical Review of Passive Noise Control Techniques in Industrial Fans. , 2013, , .		0
114	Large-Eddy Simulation of the Aerodynamic and Aeroacoustic Performance of a Ventilation Fan. Advances in Acoustics and Vibration, 2013, 2013, 1-10.	0.5	0
115	Fan Conceptual Design as Applied to the Marmaray Tunnel Ventilation System. , 2013, , .		0
116	The role of variable pitch in motion blades and variable rotational speed in an industrial fan stall. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, 2014, 228, 272-284.	1.4	0
117	Axial Flow Fan Design Experience for a Project Based Turbomachinery Class. , 2015, , .		0
118	Experimental Investigation on Double Anti-Stall Ring Effects on Reversible Ventilation Fan Performance. , 2016, , .		0
119	Fouling Detection in Low Speed Fan Using Near-Field DIY Sound Pressure Sensors. , 2016, , .		0
120	Modelling of Axial Fan and Anti-Stall Ring on a Virtual Test Rig for Air Performance Evaluation. , 2016, , .		0
121	Energy rating of a water pumping station using multivariate analysis. Energy Procedia, 2017, 126, 385-391.	1.8	0
122	19th International Conference on Finite Elements in Flow Problems. Computers and Fluids, 2019, 179, 702-703.	2.5	0
123	Exploration of Axial Fan Design Space with Data-Driven Approach. International Journal of Turbomachinery, Propulsion and Power, 2019, 4, 11.	1.1	0
124	An Acoustic-Based Stall-Warning System for Application in Induced-Draft Boiler Fans. , 2012, , .		0
125	Stall Detection Using Pseudo-Acoustic Pressure Modulation in Industrial Fans. Periodica Polytechnica, Mechanical Engineering, 2015, 59, 153-163.	1.4	0
126	Identification of Poorly Ventilated Zones in Gas-Turbine Enclosures With Machine Learning. , 2019, , .		0

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127	Modelling of Sonic Jets for Gas Leak Applications. , 2019, , .		0
128	Optimization of a Tip Appendage for the Control of Tip Leakage Vortices in Axial Flow Fans. Journal of Turbomachinery, 2022, 144, .	1.7	0