

# Paolo Giangrande

## List of Publications by Year in descending order

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83  
papers

2,079  
citations

304368

22  
h-index

288905

40  
g-index

83  
all docs

83  
docs citations

83  
times ranked

1261  
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrical Power Generation in Aircraft: Review, Challenges, and Opportunities. IEEE Transactions on Transportation Electrification, 2018, 4, 646-659.	5.3	400
2	Analytical Thermal Model for Fast Stator Winding Temperature Prediction. IEEE Transactions on Industrial Electronics, 2017, 64, 6116-6126.	5.2	142
3	Improved Thermal Management and Analysis for Stator End-Windings of Electrical Machines. IEEE Transactions on Industrial Electronics, 2019, 66, 5057-5069.	5.2	116
4	End Effects in Linear Tubular Motors and Compensated Position Sensorless Control Based on Pulsating Voltage Injection. IEEE Transactions on Industrial Electronics, 2011, 58, 494-502.	5.2	95
5	Self-Commissioning of Interior Permanent- Magnet Synchronous Motor Drives With High-Frequency Current Injection. IEEE Transactions on Industry Applications, 2014, 50, 3295-3303.	3.3	75
6	Thermal Overload and Insulation Aging of Short Duty Cycle, Aerospace Motors. IEEE Transactions on Industrial Electronics, 2020, 67, 2618-2629.	5.2	75
7	Review, Challenges, and Future Developments of Electric Taxiing Systems. IEEE Transactions on Transportation Electrification, 2019, 5, 1441-1457.	5.3	63
8	Design and Losses Analysis of a High Power Density Machine for Flooded Pump Applications. IEEE Transactions on Industry Applications, 2018, 54, 3260-3270.	3.3	60
9	Sensorless Position Control of Permanent-Magnet Motors With Pulsating Current Injection and Compensation of Motor End Effects. IEEE Transactions on Industry Applications, 2011, 47, 1371-1379.	3.3	55
10	Considerations on the Development of an Electric Drive for a Secondary Flight Control Electromechanical Actuator. IEEE Transactions on Industry Applications, 2019, 55, 3544-3554.	3.3	55
11	The Rebirth of the Current Source Inverter: Advantages for Aerospace Motor Design. IEEE Industrial Electronics Magazine, 2019, 13, 65-76.	2.3	52
12	An Active Modulation Scheme to Boost Voltage Utilization of the Dual Converter With a Floating Bridge. IEEE Transactions on Industrial Electronics, 2019, 66, 5623-5633.	5.2	52
13	Moving Toward a Reliability-Oriented Design Approach of Low-Voltage Electrical Machines by Including Insulation Thermal Aging Considerations. IEEE Transactions on Transportation Electrification, 2020, 6, 16-27.	5.3	50
14	Considerations on the Effects That Core Material Machining Has on an Electrical Machine's Performance. IEEE Transactions on Energy Conversion, 2018, 33, 1154-1163.	3.7	43
15	Reliability-Oriented Design of Electrical Machines: The Design Process for Machines' Insulation Systems MUST Evolve. IEEE Industrial Electronics Magazine, 2020, 14, 20-28.	2.3	43
16	On the Effects of Advanced End-Winding Cooling on the Design and Performance of Electrical Machines. , 2018, , .		35
17	Technical Review of Dual Inverter Topologies for More Electric Aircraft Applications. IEEE Transactions on Transportation Electrification, 2022, 8, 1966-1980.	5.3	32
18	Thermal Model Approach to Multisector Three-Phase Electrical Machines. IEEE Transactions on Industrial Electronics, 2021, 68, 2919-2930.	5.2	31

#	ARTICLE	IF	CITATIONS
19	DC Current Control for a Single-Stage Current Source Inverter in Motor Drive Application. IEEE Transactions on Power Electronics, 2021, 36, 3367-3376.	5.4	28
20	Design of Fault-Tolerant Dual Three-Phase Winding PMSM for Helicopter Landing Gear EMA. , 2018, , .		26
21	On the Design of Partial Discharge-Free Low Voltage Electrical Machines. , 2019, , .		26
22	Investigation of AC Copper and Iron Losses in High-Speed High-Power Density PMSM. , 2018, , .		25
23	Thermal analysis of fault-tolerant electrical machines for aerospace actuators. IET Electric Power Applications, 2019, 13, 843-852.	1.1	25
24	A Time-Saving Approach for the Thermal Lifetime Evaluation of Low-Voltage Electrical Machines. IEEE Transactions on Industrial Electronics, 2020, 67, 9195-9205.	5.2	25
25	Highly Ordered BN <sub>2</sub> Stacking Structure for Improved Thermally Conductive Polymer Composites. Advanced Electronic Materials, 2020, 6, 2000627.	2.6	25
26	Electrical Machines for the More Electric Aircraft: Partial Discharges Investigation. IEEE Transactions on Industry Applications, 2021, 57, 1389-1398.	3.3	25
27	More Electric Aircraft Electro-Mechanical Actuator Regenerated Power Management. , 2015, , .		24
28	Enhanced Performance of Dual Inverter With a Floating Capacitor for Motor Drive Applications. IEEE Transactions on Power Electronics, 2021, 36, 6903-6916.	5.4	23
29	Additive Manufacturing and Testing of a Soft Magnetic Rotor for a Switched Reluctance Motor. IEEE Access, 2020, 8, 206982-206991.	2.6	22
30	Evaluation of strand-to-strand capacitance and dissipation factor in thermally aged enamelled coils for low-voltage electrical machines. IET Science, Measurement and Technology, 2019, 13, 1170-1177.	0.9	21
31	Failure Modes and Reliability Oriented System Design for Aerospace Power Electronic Converters. IEEE Open Journal of the Industrial Electronics Society, 2021, 2, 53-64.	4.8	21
32	Introducing Physics of Failure Considerations in the Electrical Machines Design. , 2019, , .		18
33	Impact of thermal overload on the insulation aging in short duty cycle motors for aerospace. , 2018, , .		17
34	The Role of Neural Networks in Predicting the Thermal Life of Electrical Machines. IEEE Access, 2020, 8, 40283-40297.	2.6	17
35	Influence of rotor endcaps on the electromagnetic performance of high-speed PM machine. IET Electric Power Applications, 2018, 12, 1142-1149.	1.1	16
36	Reliability vs. Performances of Electrical Machines: Partial Discharges Issue. , 2019, , .		16

#	ARTICLE	IF	CITATIONS
37	A Consequent-Pole Hybrid Exciter for Synchronous Generators. IEEE Transactions on Energy Conversion, 2021, 36, 368-379.	3.7	16
38	Thermal analysis of fault-tolerant electrical machines for more electric aircraft applications. Journal of Engineering, 2018, 2018, 461-467.	0.6	13
39	Insulation Capacitance as Diagnostic Marker for Thermally Aged, Low Voltage Electrical Machines. , 2019, , .		13
40	Influence of Insulation Thermal Aging on the Temperature Assessment in Electrical Machines. IEEE Transactions on Energy Conversion, 2021, 36, 456-467.	3.7	13
41	Energy Storage System Selection for Optimal Fuel Consumption of Aircraft Hybrid Electric Taxiing Systems. IEEE Transactions on Transportation Electrification, 2021, 7, 1870-1887.	5.3	12
42	Fast and Accurate 2D Analytical Subdomain Method for Coaxial Magnetic Coupling Analysis. Energies, 2021, 14, 4656.	1.6	11
43	System-Level Motor Drive Modelling for Optimization-based Designs. , 2019, , .		9
44	Feasibility Design Study of High-Performance, High-Power-Density Propulsion Motor for Middle-Range Electric Aircraft. , 2020, , .		8
45	System-Level Reliability Assessment of Short Duty Electric Drives for Aerospace. IEEE Transactions on Transportation Electrification, 2021, 7, 1888-1900.	5.3	7
46	PM Halbach Arrays in Motors: Loss Reduction and Performance Improvements. , 2020, , .		7
47	A Contribution to Thermal Ageing Assessment of Glass Fibre Insulated Wire Based on Partial Discharges Activity. IEEE Access, 2022, 10, 41186-41200.	2.6	7
48	Lifetime Estimation of Enameled Wires Under Accelerated Thermal Aging Using Curve Fitting Methods. IEEE Access, 2021, 9, 18993-19003.	2.6	6
49	3D Printing as a Technology Enabler for Electrical Machines: Manufacturing and Testing of a Salient Pole Rotor for SRM. , 2020, , .		6
50	Modelling short- and open-circuit faults in permanent magnet synchronous machines using Modelica. Journal of Engineering, 2016, 2016, 73-79.	0.6	5
51	An effective hybrid space vector PWM technique to improved inverter performance. , 2017, , .		5
52	Fast and Accurate Model for Optimization-based Design of Fractional-Slot Surface PM Machines. , 2019, , .		5
53	Integrated motor drive design for weight optimization. , 2017, , .		4
54	Voltage Utilization Enhancement of Dual Inverters by Model Predictive Control for Motor Drive Applications. , 2019, , .		4

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55	On the Thermal Insulation Qualification of Low Voltage Electrical Machines. , 2019, , .		4
56	Evolutionary Multiobjective Optimization of a System-Level Motor Drive Design. IEEE Transactions on Industry Applications, 2020, 56, 6904-6913.	3.3	4
57	Influence of Manufacturing and Drive Effects in High-Speed, High-Power-Density PM Machine for Flooded Pump Application. , 2021, , .		4
58	Reliability-Oriented Design of Inverter-Fed Low-Voltage Electrical Machines: Potential Solutions. Energies, 2021, 14, 4144.	1.6	4
59	Sensorless Control of Linear Tubular Permanent Magnet Synchronous Motors Using Pulsating Signal Injection. , 2008, , .		3
60	Analysis of Energy Storage System Requirements for Aircraft Electric Taxiing Operations. , 2019, , .		3
61	Fast and Accurate Multi-Physics Model for Optimization-based Design of VSBBC. , 2019, , .		3
62	Influence of Thermal Aging on the Winding Thermal Conductivity in Low Voltage Electrical Machines. , 2020, , .		3
63	Novel Parameter Identification Method for Lithium-Ion Batteries Based on Curve Fitting. , 2020, , .		3
64	Hybrid Magnet - Field Winding Solutions for Exciters of Synchronous Generators. , 2019, , .		2
65	An Active Modulation Scheme for Avoiding Overcharging in the Dual Converter with Isolated Asymmetric Supplies. , 2019, , .		2
66	An Enhanced Unified Space Vector Modulation Technique for Dual Converters with Isolated Voltage Supplies. , 2019, , .		2
67	Improving Performance and Extending Lifetime of PMSMs via Advanced End-Winding Cooling. , 2020, , .		2
68	Reliability Oriented Design of Low Voltage Electrical Machines Based On Accelerated Thermal Aging Tests. , 2020, , .		2
69	Weibull Distribution and Geometrical Size Factor for Evaluating the Thermal Life of Electrical Machines's Insulation. , 2020, , .		2
70	A Novel Magnetic Coupling Configuration for Enhancing the Torque Density. , 2020, , .		2
71	Partial Discharge Investigation Under Humidity Conditions via Dissipation Factor and Insulation Capacitance Tip-Up Test. IEEE Transactions on Dielectrics and Electrical Insulation, 2022, 29, 1483-1490.	1.8	2
72	A simplified position observer for zero-speed sensorless control of synchronous motors. , 2009, , .		1

#	ARTICLE	IF	CITATIONS
73	Development of a Modelica Library for Electro-Mechanical Actuator System Studies including Fault Scenarios and Losses. , 2014, , .		1
74	Integrated Design of Motor Drives Using Random Heuristic Optimization for Aerospace Applications. , 0, , .		1
75	Modelling and Analysis of an Aircraft On-board Electric Taxiing System. , 2019, , .		1
76	Predicting Insulation Resistance of Enamelled Wire using Neural Network and Curve Fit Methods Under Thermal Aging. , 2020, , .		1
77	Magneto-mechanical Design and Development of a Coaxial Magnetic Coupling with Optimization of Torque to Mass Ratio. , 2021, , .		1
78	Design and Analysis of a Double Coaxial Magnetic Coupling to Improve Torque Density. , 2021, , .		1
79	Analysis of two-part rotor, axial flux permanent magnet machines. , 2011, , .		0
80	RexMoto-A Range Extender Concept for Light Electric Aircraft. , 2020, , .		0
81	Unconventional accelerated thermal ageing test for traction electric motors in vehicles. , 2020, , .		0
82	On the Capability of Heat Dissipation in Thermally Aged Electrical Machines. , 2020, , .		0
83	Trade-off Analysis of Energy Storage Systems for Helicopter Landing Gear Electromechanical Actuator. , 2021, , .		0