

# Luigi Alberti

## List of Publications by Year in descending order

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106  
papers

1,944  
citations

304701

22  
h-index

315719

38  
g-index

106  
all docs

106  
docs citations

106  
times ranked

1193  
citing authors

#	ARTICLE	IF	CITATIONS
1	Theory and Design of Fractional-Slot Multilayer Windings. IEEE Transactions on Industry Applications, 2013, 49, 841-849.	4.9	152
2	Experimental Tests of Dual Three-Phase Induction Motor Under Faulty Operating Condition. IEEE Transactions on Industrial Electronics, 2012, 59, 2041-2048.	7.9	115
3	Performance Comparison Between Switching-Flux and IPM Machines With Rare-Earth and Ferrite PMs. IEEE Transactions on Industry Applications, 2014, 50, 3708-3716.	4.9	113
4	A Coupled Thermal-Electromagnetic Analysis for a Rapid and Accurate Prediction of IM Performance. IEEE Transactions on Industrial Electronics, 2008, 55, 3575-3582.	7.9	108
5	Considerations on Selecting Fractional-Slot Nonoverlapped Coil Windings. IEEE Transactions on Industry Applications, 2013, 49, 1316-1324.	4.9	71
6	Design of a Low-Torque-Ripple Fractional-Slot Interior Permanent-Magnet Motor. IEEE Transactions on Industry Applications, 2014, 50, 1801-1808.	4.9	64
7	MMF Harmonics Effect on the Embedded FE Analytical Computation of PM Motors. IEEE Transactions on Industry Applications, 2010, 46, 812-820.	4.9	57
8	A Very Rapid Prediction of IM Performance Combining Analytical and Finite-Element Analysis. IEEE Transactions on Industry Applications, 2008, 44, 1505-1512.	4.9	56
9	Fast Estimation of Line-Start Reluctance Machine Parameters by Finite Element Analysis. IEEE Transactions on Energy Conversion, 2011, 26, 1-8.	5.2	53
10	Design and Control of an Axial-Flux Machine for a Wide Flux-Weakening Operation Region. IEEE Transactions on Industry Applications, 2009, 45, 1258-1266.	4.9	51
11	Variable-Speed Induction Machine Performance Computed Using Finite-Element. IEEE Transactions on Industry Applications, 2011, 47, 789-797.	4.9	49
12	Rotor Losses Measurements in an Axial Flux Permanent Magnet Machine. IEEE Transactions on Energy Conversion, 2011, 26, 639-645.	5.2	48
13	IPM Machine Drive Design and Tests for an Integrated Starter-Alternator Application. IEEE Transactions on Industry Applications, 2010, 46, 993-1001.	4.9	43
14	Core Axial Lengthening as Effective Solution to Improve the Induction Motor Efficiency Classes. IEEE Transactions on Industry Applications, 2014, 50, 218-225.	4.9	41
15	Electrification of Agricultural Machinery: A Review. IEEE Access, 2021, 9, 164520-164541.	4.2	38
16	Thermal Analysis of Duplex Three-Phase Induction Motor Under Fault Operating Conditions. IEEE Transactions on Industry Applications, 2013, 49, 1523-1530.	4.9	37
17	Impact of the Rotor Yoke Geometry on Rotor Losses in Permanent-Magnet Machines. IEEE Transactions on Industry Applications, 2012, 48, 98-105.	4.9	36
18	Considerations on selecting fractional-slot windings. , 2010, , .		34

#	ARTICLE	IF	CITATIONS
19	Performance comparison between switching-flux and IPM machine with rare earth and ferrite PMs. , 2012, , .		34
20	Design of a low torque ripple fractional-slot interior permanent magnet motor. , 2012, , .		29
21	Finite-Element Analysis of Electrical Machines for Sensorless Drives With High-Frequency Signal Injection. IEEE Transactions on Industry Applications, 2014, 50, 1871-1879.	4.9	28
22	Improved Analytical Estimation of Rotor Losses in High-Speed Surface-Mounted PM Synchronous Machines. IEEE Transactions on Industry Applications, 2017, 53, 3548-3556.	4.9	26
23	High-Frequency $d\hat{e}$ Model of Synchronous Machines for Sensorless Control. IEEE Transactions on Industry Applications, 2015, 51, 3923-3931.	4.9	25
24	Implementation and Experimental Validation of Ultrahigh-Speed PMSM Sensorless Control by Means of Extended Kalman Filter. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 3337-3344.	5.4	23
25	Impact of winding arrangement in dual 3-phase induction motor for fault tolerant applications. , 2010, , .		22
26	Theory and design of fractional-slot multilayer windings. , 2011, , .		22
27	Case of Study of the Electrification of a Tractor: Electric Motor Performance Requirements and Design. Energies, 2020, 13, 2197.	3.1	22
28	A Feasibility Study for Agriculture Tractors Electrification: Duty Cycles Simulation and Consumption Comparison. , 2019, , .		21
29	Computation of Self-Sensing Capabilities of Synchronous Machines for Rotating High Frequency Voltage Injection Sensorless Control. IEEE Transactions on Industrial Electronics, 2022, 69, 3324-3333.	7.9	21
30	Core axial lengthening as effective solution to improve the induction motor efficiency classes. , 2011, , .		19
31	Design and Tests of a Four-Layer Fractional-Slot Interior Permanent-Magnet Motor. IEEE Transactions on Industry Applications, 2016, 52, 2234-2240.	4.9	19
32	Synchronous motors for traction applications. , 2017, , .		18
33	Electrification of agricultural machinery: a feasibility evaluation. , 2019, , .		17
34	Design and tests on a fractional-slot induction machine. , 2012, , .		16
35	Efficient QR Updating Factorization for Sensorless Synchronous Motor Drive Based on High Frequency Voltage Injection. IEEE Transactions on Industrial Electronics, 2020, 67, 10213-10222.	7.9	16
36	Feasibility Evaluation of Hybrid Electric Agricultural Tractors Based on Life Cycle Cost Analysis. IEEE Access, 2022, 10, 28853-28867.	4.2	14

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37	Small-signal finite-element modeling of synchronous machines for sensorless applications. , 2012, , .		13
38	Finite-element analysis of electrical machines for sensorless drives with signal injection. , 2012, , .		13
39	Comparison of different synchronous machines for sensorless drives. , 2013, , .		13
40	Analysis and Tests of the Sensorless Rotor Position Detection of Ringed-Pole Permanent-Magnet Motor. IEEE Transactions on Industry Applications, 2014, 50, 3278-3284.	4.9	13
41	An Effective Ellipse Fitting Technique of the Current Response Locus to Rotating HF Voltage Injection in IPMSM for Sensorless Rotor Position Estimation. , 2018, , .		13
42	Direct Analysis of Induction Motor Using Finite Element. , 2018, , .		13
43	Induction Motor Mapping Using Rotor Field-Oriented Analysis Technique. , 2019, , .		13
44	Field oriented control of induction motor: A direct analysis using finite element. , 2008, , .		12
45	Finite Element Small-Signal Simulation of Electromagnetic Devices Considering Eddy Currents in the Laminations. IEEE Transactions on Magnetics, 2017, 53, 1-8.	2.1	11
46	Koil: A Tool to Design the Winding of Rotating Electric Machinery. , 2018, , .		11
47	A Fast and Direct Analysis of Three-Phase Induction Motors Using Finite Element. , 2018, , .		11
48	Induction Motor Analysis Using Magnetostatic Finite Element Simulations Considering Skewing. , 2019, , .		11
49	Design of Electric Motors and Power Drive Systems According to Efficiency Standards. IEEE Transactions on Industrial Electronics, 2021, 68, 9287-9296.	7.9	11
50	Sensorless Drive for Salient Synchronous Motors Based on Direct Fitting of Elliptical-Shape High-Frequency Currents. IEEE Transactions on Industrial Electronics, 2023, 70, 3394-3403.	7.9	11
51	MMF Harmonics Effect on the Embedded FE-Analytical Computation of PM Motors. Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), 2007, , .	0.0	10
52	Thermal analysis of dual three-phase machines under faulty operations. , 2011, , .		10
53	Electric Drives for Hybrid Electric Agricultural Tractors. , 2021, , .		10
54	Challenges of the Optimization of a High-Speed Induction Machine for Naval Applications. Energies, 2019, 12, 2431.	3.1	9

#	ARTICLE	IF	CITATIONS
55	Impact of the rotor yoke geometry on rotor losses in permanent magnet machines. , 2010, , .		8
56	Energy efficiency improvement adopting synchronous motors. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2015, 34, 76-91.	0.9	8
57	Self-Adaptive High-Frequency Injection Based Sensorless Control for Interior Permanent Magnet Synchronous Motor Drives. Energies, 2019, 12, 3645.	3.1	8
58	Analysis of asynchronous machines for direct drive wind power generation. , 2009, , .		7
59	Analysis and tests of the sensorless rotor position detection of ringed-pole PM motor. , 2012, , .		7
60	Investigation on the self-sensing capability of a fractional-slot inset PM motor. , 2013, , .		7
61	Start and stop systems on agricultural tractors as solution for saving fuel and emissions. Biosystems Engineering, 2022, 216, 108-120.	4.3	7
62	Thermal assisted finite element analysis of electrical machines. , 2008, , .		6
63	IM rotor parameters analysis with an intentionally created saliency. , 2010, , .		6
64	Effect of the generator sizing on a wave energy converter considering different control strategies. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2012, 32, 233-247.	0.9	6
65	Vehicle-integrated Photovoltaic (ViPV) systems: Energy production, Diesel Equivalent, Payback Time; an assessment screening for trucks and busses. , 2014, , .		6
66	Self-adaptive high-frequency injection based sensorless control for IPMSM and SynRM. , 2017, , .		6
67	Notice of Removal: Electrical machine analysis using free software. , 2017, , .		6
68	Direct Analysis of Three-Phase Induction Motor Considering Rotor Parametersâ€™ Variation and Stator Belt Harmonics Effect. IEEE Transactions on Industry Applications, 2020, 56, 3559-3570.	4.9	6
69	Experimental Investigation on the Self-Sensing Capability of Synchronous Machines for Signal Injection Sensorless Drives. , 2021, , .		6
70	Finite element estimation of induction motor parameters for sensorless applications. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2011, 31, 191-205.	0.9	5
71	Energy efficiency improvement adopting synchronous motors. , 2013, , .		5
72	Sensorless control of a super-high speed synchronous motor drive based on a Kalman filter. , 2016, , .		5

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73	A rapid prediction of IM performance using a combined analytical and finite element analysis. , 2007, , .		4
74	Effective control of an Integrated Starter-Alternator with an IPM synchronous machine. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	4
75	A finite-element procedure to compute variable speed induction machine performance. , 2009, , .		4
76	Computation and measurement of high frequency parameters in a synchronous machine. , 2015, , .		4
77	Analysis and Test of the Sensorless Capability of Induction Motors With Created Saliency. IEEE Transactions on Industry Applications, 2016, 52, 2186-2193.	4.9	4
78	Design and Control of an Axial Flux Machine for a Wide Flux-Weakening Operation Region. Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), 2007, , .	0.0	3
79	Lamination Design of a Set of Induction Motors for Elevator Systems. , 2007, , .		3
80	Finite element modeling of induction motor for variable speed drives. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2010, 29, 1245-1256.	0.9	3
81	Design of small-size generator for variable speed micro-hydroelectric power plants. , 2014, , .		3
82	Online Incremental Inductance Identification for Reluctance Synchronous Motors. , 2021, , .		3
83	MMF Harmonics Effect on the Embedded FE-Analytical Computation of PM Motors. Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), 2007, , .	0.0	2
84	Energy supplying of high altitude isolated users. , 2008, , .		2
85	Finite element modeling of induction motor for variable speed drives. , 2008, , .		2
86	Interior permanent magnet integrated starter-alternator. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2011, 30, 117-136.	0.9	2
87	A design-oriented model of doubly-fed induction machine. , 2011, , .		2
88	A computational technique for iron losses in electrical machines. , 2016, , .		2
89	Improved analytical estimation of rotor losses in high-speed PM synchronous machines. , 2016, , .		2
90	Investigation on the frequency effects on iron losses in laminations. , 2017, , .		2

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91	Measures and Simulations of Induction Machines Flux Linkage Characteristics Based on Rotor Field Orientation. IEEE Transactions on Industry Applications, 2021, 57, 4686-4693.	4.9	2
92	Induction motor with an intentionally created saliency for sensorless applications. , 2013, , .		1
93	Variable speed operation of micro-hydroelectric power generators. , 2014, , .		1
94	High frequency d-q model of synchronous machines for sensorless control. , 2014, , .		1
95	Design and tests of a four-layer fractional-slot Interior Permanent Magnet motor. , 2015, , .		1
96	Parameters identification of multi-windings induction machines. , 2016, , .		1
97	Comparison of small-size generator for high-efficiency hydroelectric energy production. , 2017, , .		1
98	Small-Signal Finite Element Simulation of an Induction Machine. , 2018, , .		1
99	On The Efficiency Requirements For Electrical Motors and Power Electronics in Complete Drive Systems. , 2019, , .		1
100	Identification of high-frequency parameters of an inset PM motor including eddy currents. , 2016, , .		1
101	Rotating High Frequency Injection and Ellipse Fitting Technique for Ringed-Pole Motor Sensorless Control. , 2020, , .		1
102	Design and Control of an Axial Flux Machine for a Wide Flux-Weakening Operation Region. Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), 2007, , .	0.0	0
103	Analysis and test of the sensorless capability of induction motors with created saliency. , 2014, , .		0
104	Sensorless control of a PMSM for dynamic control performance evaluation. , 2017, , .		0
105	Self-commissioning of sensorless drive for synchronous machine: Finite element analysis computation and measurement of flux maps. , 2017, , .		0
106	Optimization of a Line-Start Motor for Centrifugal Loads within Premium Efficiency According to IEC Standard. , 2021, , .		0