

# Gerd Bramerdorfer

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

64  
papers

690  
citations

15  
h-index

23  
g-index

80  
ext. papers

1,032  
ext. citations

3.8  
avg, IF

5.1  
L-index

#	Paper	IF	Citations
64	. <i>IEEE Transactions on Industrial Electronics</i> , <b>2018</b> , 65, 7672-7684	8.9	80
63	Hybridization of multi-objective evolutionary algorithms and artificial neural networks for optimizing the performance of electrical drives. <i>Engineering Applications of Artificial Intelligence</i> , <b>2013</b> , 26, 1781-1794	7.2	64
62	Using FE Calculations and Data-Based System Identification Techniques to Model the Nonlinear Behavior of PMSMs. <i>IEEE Transactions on Industrial Electronics</i> , <b>2014</b> , 61, 6454-6462	8.9	37
61	DECMO2: a robust hybrid and adaptive multi-objective evolutionary algorithm. <i>Soft Computing</i> , <b>2015</b> , 19, 3551-3569	3.5	35
60	Surrogate-Based Multi-Objective Optimization of Electrical Machine Designs Facilitating Tolerance Analysis. <i>IEEE Transactions on Magnetics</i> , <b>2017</b> , 53, 1-11	2	32
59	System-Level Robust Design Optimization of a Switched Reluctance Motor Drive System Considering Multiple Driving Cycles. <i>IEEE Transactions on Energy Conversion</i> , <b>2021</b> , 36, 348-357	5.4	31
58	Accurate and Easy-to-Obtain Iron Loss Model for Electric Machine Design. <i>IEEE Transactions on Industrial Electronics</i> , <b>2017</b> , 64, 2530-2537	8.9	29
57	Analytical Modeling and Optimization for Electromagnetic Performances of Fractional-Slot PM Brushless Machines. <i>IEEE Transactions on Industrial Electronics</i> , <b>2018</b> , 65, 4017-4027	8.9	25
56	Tolerance Analysis for Electric Machine Design Optimization: Classification, Modeling and Evaluation, and Example. <i>IEEE Transactions on Magnetics</i> , <b>2019</b> , 55, 1-9	2	23
55	. <i>IEEE Transactions on Industry Applications</i> , <b>2016</b> , 52, 4668-4677	4.3	22
54	Combined Analytical-Numerical Noise Calculation of Electrical Machines Considering Nonsinusoidal Mode Shapes. <i>IEEE Transactions on Magnetics</i> , <b>2013</b> , 49, 1407-1415	2	22
53	Optimization of Electric Machine Designs Part I. <i>IEEE Transactions on Industrial Electronics</i> , <b>2017</b> , 64, 9716-9720	8.9	21
52	Identification of a nonlinear PMSM model using symbolic regression and its application to current optimization scenarios <b>2014</b> ,		16
51	A Hybrid Soft Computing Approach for Optimizing Design Parameters of Electrical Drives. <i>Advances in Intelligent Systems and Computing</i> , <b>2013</b> , 347-358	0.4	16
50	Optimization of Electric Machine Designs - Part II. <i>IEEE Transactions on Industrial Electronics</i> , <b>2018</b> , 65, 1700-1703	8.9	15
49	Computationally Efficient Tolerance Analysis of the Cogging Torque of Brushless PMSMs. <i>IEEE Transactions on Industry Applications</i> , <b>2017</b> , 53, 3387-3393	4.3	14
48	Reducing Development Time of Electric Machines with SyMSpace <b>2018</b> ,		14

47	Local Degradation in Soft Magnetic Materials: A Simplified Modeling Approach. <i>IEEE Transactions on Industry Applications</i> , <b>2019</b> , 55, 5897-5905	4-3	12
46	Robust Design Optimization of Electrical Machines: Multi-Objective Approach. <i>IEEE Transactions on Energy Conversion</i> , <b>2021</b> , 36, 390-401	5-4	11
45	Robust Design Optimization of Switched Reluctance Motor Drive Systems Based on System-Level Sequential Taguchi Method. <i>IEEE Transactions on Energy Conversion</i> , <b>2021</b> , 1-1	5-4	11
44	Machine Learning for Design Optimization of Electromagnetic Devices: Recent Developments and Future Directions. <i>Applied Sciences (Switzerland)</i> , <b>2021</b> , 11, 1627	2.6	11
43	Effect of the Manufacturing Impact on the Optimal Electric Machine Design and Performance. <i>IEEE Transactions on Energy Conversion</i> , <b>2020</b> , 35, 1935-1943	5-4	9
42	Striving for the Highest Efficiency Class With Minimal Impact for Induction Motor Manufacturers. <i>IEEE Transactions on Industry Applications</i> , <b>2020</b> , 56, 194-204	4-3	8
41	More Robust and Reliable Optimized Energy Conversion Facilitated through Electric Machines, Power Electronics and Drives, and Their Control: State-of-the-Art and Trends. <i>IEEE Transactions on Energy Conversion</i> , <b>2020</b> , 35, 1997-2012	5-4	8
40	Coupled optimization in MagOpt. <i>Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering</i> , <b>2016</b> , 230, 291-299	1	7
39	Robust Design Optimization of Electrical Machines: A Comparative Study and Space Reduction Strategy. <i>IEEE Transactions on Energy Conversion</i> , <b>2021</b> , 36, 300-313	5-4	7
38	Towards an IE4 Efficiency Class for Induction Motors with Minimal Manufacturer Impact <b>2018</b> ,		6
37	Investigation and Modeling of Local Degradation in Soft Magnetic Materials <b>2018</b> ,		6
36	Methods to Improve the Cogging Torque Robustness Under Manufacturing Tolerances for the Permanent Magnet Synchronous Machine. <i>IEEE Transactions on Energy Conversion</i> , <b>2021</b> , 36, 2152-2162	5-4	6
35	Impact of IM pole count on material cost increase for achieving mandatory efficiency requirements <b>2016</b> ,		5
34	Analysis of a Tooth-Coil Winding Permanent-Magnet Synchronous Machine With an Unequal Teeth Width. <i>IEEE Access</i> , <b>2020</b> , 8, 71512-71524	3-5	5
33	Cogging torque sensitivity considering imperfect magnet positioning for permanent magnet machines of different slot and pole count. <i>CES Transactions on Electrical Machines and Systems</i> , <b>2020</b> , 4, 243-251	2-3	5
32	Design of a rotational iron loss measurement system. <i>TM Technisches Messen</i> , <b>2018</b> , 85, 233-243	0-7	4
31	Design of a measurement system for investigating the magnetic characteristics of soft magnetic materials for non-sinusoidal periodic excitations. <i>TM Technisches Messen</i> , <b>2016</b> , 83, 317-327	0-7	4
30	An Effective Ensemble-Based Method for Creating On-the-Fly Surrogate Fitness Functions for Multi-objective Evolutionary Algorithms <b>2013</b> ,		4

29	Cost-optimal machine designs fulfilling efficiency requirements: A comparison of IMs and PMSMs <b>2017,</b>		4
28	Importance of thermal modeling for design optimization scenarios of induction motors <b>2017,</b>		4
27	Analytic determination of cogging torque harmonics of brushless permanent magnet machines <b>2012,</b>		4
26	Robustness criteria for concurrent evaluation of the impact of tolerances in multiobjective electric machine design optimization. <i>CES Transactions on Electrical Machines and Systems</i> , <b>2020</b> , 4, 3-12	2.3	4
25	Impact of Tolerances on the Cogging Torque of Tooth-Coil-Winding PMSMs with Modular Stator Core by Means of Efficient Superposition Technique. <i>Electronics (Switzerland)</i> , <b>2020</b> , 9, 1594	2.6	3
24	On the Use of the Cumulative Distribution Function for Large-Scale Tolerance Analyses Applied to Electric Machine Design. <i>Stats</i> , <b>2020</b> , 3, 412-426	0.9	3
23	Sizing procedure of surface mounted PM machines for fast analytical evaluations <b>2017,</b>		3
22	A General Investigation of the Sensitiveness of Brushless Permanent Magnet Synchronous Machines Considering Magnet Tolerances. <i>IEEE Transactions on Magnetics</i> , <b>2020</b> , 56, 1-9	2	3
21	Synchronous Reluctance Rotor Design Considerations based on Winding Configuration <b>2019,</b>		3
20	State-of-the-art and future trends in soft magnetic materials characterization with focus on electric machine design [Part 1. <i>TM Technisches Messen</i> , <b>2019</b> , 86, 540-552	0.7	2
19	State-of-the-art and future trends in soft magnetic materials characterization with focus on electric machine design [Part 2. <i>TM Technisches Messen</i> , <b>2019</b> , 86, 553-565	0.7	2
18	A computationally efficient surrogate model based robust optimization for permanent magnet synchronous machines. <i>IEEE Transactions on Energy Conversion</i> , <b>2022</b> , 1-1	5.4	2
17	Measurement-Based Optimization of Thermal Networks for Temperature Monitoring of Outer Rotor PM Machines <b>2020,</b>		2
16	Multi-Objective Optimization of a Line-Start Synchronous Machine Using a Self-Organizing Algorithm. <i>IEEE Transactions on Magnetics</i> , <b>2021</b> , 57, 1-4	2	2
15	Incorporating the Soft Magnetic Material Degradation to Numerical Simulations. <i>IEEE Transactions on Industry Applications</i> , <b>2020</b> , 1-1	4.3	2
14	Topology Optimization of Rotor Bars Geometry and Arrangement for a Line-Start Permanent Magnet Synchronous Machine. <i>IEEE Access</i> , <b>2021</b> , 9, 115192-115204	3.5	2
13	Comparison of Combined Winding Strategies for Radial Non-Salient Bearingless Machines. <i>IEEE Transactions on Industry Applications</i> , <b>2021</b> , 1-1	4.3	2
12	Influence of Hysteresis and Eddy Current Losses on Electric Drive Energy Balance in Driving Cycle Operation <b>2018,</b>		2

11	Quantifying the Impact of Tolerance-Affected Parameters on the Performance of Permanent Magnet Synchronous Machines. <i>IEEE Transactions on Energy Conversion</i> , <b>2020</b> , 35, 2170-2180	5.4	1
10	Multiobjective electric machine optimization for highest reliability demands. <i>CES Transactions on Electrical Machines and Systems</i> , <b>2020</b> , 4, 71-78	2.3	1
9	Spectral-field design with respect to minimum cogging torque and maximum output power <b>2010</b> ,		1
8	Studies of Measurement Uncertainties in the Characterization of Soft Magnetic Materials and their Impact on the Electric Machine Performance Prediction <b>2021</b> ,		1
7	Surface-Mounted and Flux-Switching PM Structures Trade-off for Automotive Smart Actuators <b>2019</b> ,		1
6	Comprehensive Design and Analysis of an Interior Permanent Magnet Synchronous Machine for Light-Duty Passenger EVs. <i>IEEE Access</i> , <b>2022</b> , 10, 819-831	3.5	0
5	Experimental Assessment and Modeling of Losses in Interlocked Magnetic Cores. <i>IEEE Transactions on Industry Applications</i> , <b>2022</b> , 1-1	4.3	0
4	A Permanent Magnet Assembling Approach to Mitigate the Cogging Torque for Permanent Magnet Machines Considering Manufacturing Uncertainties. <i>Energies</i> , <b>2022</b> , 15, 2154	3.1	0
3	Multi-objective Design Optimization of a Novel Switched Reluctance Motor with Unequal Alternating Stator Yoke Segments. <i>IEEE Transactions on Transportation Electrification</i> , <b>2022</b> , 1-1	7.6	0
2	A Thermographic Method to Evaluate Different Processes and Assembly Effects on Magnetic Steels. <i>IEEE Transactions on Industry Applications</i> , <b>2022</b> , 1-1	4.3	
1	On Modeling the Dynamic Thermal Behavior of Electrical Machines Using Genetic Programming and Artificial Neural Networks. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 319-326	0.9	