Gerd Bramerdorfer

List of Publications by Year in Descending Order

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	Comprehensive Design and Analysis of an Interior Permanent Magnet Synchronous Machine for Light-Duty Passenger EVs. *IEEE Access*, **2022**, 10, 819-831	3.5	0
63	A Thermographic Method to Evaluate Different Processes and Assembly Effects on Magnetic Steels. *IEEE Transactions on Industry Applications*, **2022**, 1-1	4.3	
62	A computationally efficient surrogate model based robust optimization for permanent magnet synchronous machines. *IEEE Transactions on Energy Conversion*, **2022**, 1-1	5.4	2
61	Experimental Assessment and Modeling of Losses in Interlocked Magnetic Cores. *IEEE Transactions on Industry Applications*, **2022**, 1-1	4.3	0
60	A Permanent Magnet Assembling Approach to Mitigate the Cogging Torque for Permanent Magnet Machines Considering Manufacturing Uncertainties. *Energies*, **2022**, 15, 2154	3.1	0
59	Multi-objective Design Optimization of a Novel Switched Reluctance Motor with Unequal Alternating Stator Yoke Segments. *IEEE Transactions on Transportation Electrification*, **2022**, 1-1	7.6	0
58	Studies of Measurement Uncertainties in the Characterization of Soft Magnetic Materials and their Impact on the Electric Machine Performance Prediction **2021**,		1
57	Multi-Objective Optimization of a Line-Start Synchronous Machine Using a Self-Organizing Algorithm. *IEEE Transactions on Magnetics*, **2021**, 57, 1-4	2	2
56	Robust Design Optimization of Electrical Machines: Multi-Objective Approach. *IEEE Transactions on Energy Conversion*, **2021**, 36, 390-401	5.4	11
55	Robust Design Optimization of Electrical Machines: A Comparative Study and Space Reduction Strategy. *IEEE Transactions on Energy Conversion*, **2021**, 36, 300-313	5.4	7
54	System-Level Robust Design Optimization of a Switched Reluctance Motor Drive System Considering Multiple Driving Cycles. *IEEE Transactions on Energy Conversion*, **2021**, 36, 348-357	5.4	31
53	Topology Optimization of Rotor Bars Geometry and Arrangement for a Line-Start Permanent Magnet Synchronous Machine. *IEEE Access*, **2021**, 9, 115192-115204	3.5	2
52	Comparison of Combined Winding Strategies for Radial Non-Salient Bearingless Machines. *IEEE Transactions on Industry Applications*, **2021**, 1-1	4.3	2
51	Robust Design Optimization of Switched Reluctance Motor Drive Systems Based on System-Level Sequential Taguchi Method. *IEEE Transactions on Energy Conversion*, **2021**, 1-1	5.4	11
50	Machine Learning for Design Optimization of Electromagnetic Devices: Recent Developments and Future Directions. *Applied Sciences (Switzerland)*, **2021**, 11, 1627	2.6	11
49	Methods to Improve the Cogging Torque Robustness Under Manufacturing Tolerances for the Permanent Magnet Synchronous Machine. *IEEE Transactions on Energy Conversion*, **2021**, 36, 2152-2162	5.4	6
48	Impact of Tolerances on the Cogging Torque of Tooth-Coil-Winding PMSMs with Modular Stator Core by Means of Efficient Superposition Technique. *Electronics (Switzerland)*, **2020**, 9, 1594	2.6	3

47	On the Use of the Cumulative Distribution Function for Large-Scale Tolerance Analyses Applied to Electric Machine Design. *Stats*, **2020**, 3, 412-426	0.9	3
46	Effect of the Manufacturing Impact on the Optimal Electric Machine Design and Performance. *IEEE Transactions on Energy Conversion*, **2020**, 35, 1935-1943	5.4	9
45	Quantifying the Impact of Tolerance-Affected Parameters on the Performance of Permanent Magnet Synchronous Machines. *IEEE Transactions on Energy Conversion*, **2020**, 35, 2170-2180	5.4	1
44	Multiobjective electric machine optimization for highest reliability demands. *CES Transactions on Electrical Machines and Systems*, **2020**, 4, 71-78	2.3	1
43	Measurement-Based Optimization of Thermal Networks for Temperature Monitoring of Outer Rotor PM Machines **2020**,		2
42	On Modeling the Dynamic Thermal Behavior of Electrical Machines Using Genetic Programming and Artificial Neural Networks. *Lecture Notes in Computer Science*, **2020**, 319-326	0.9	
41	Striving for the Highest Efficiency Class With Minimal Impact for Induction Motor Manufacturers. *IEEE Transactions on Industry Applications*, **2020**, 56, 194-204	4.3	8
40	A General Investigation of the Sensitiveness of Brushless Permanent Magnet Synchronous Machines Considering Magnet Tolerances. *IEEE Transactions on Magnetics*, **2020**, 56, 1-9	2	3
39	Analysis of a Tooth-Coil Winding Permanent-Magnet Synchronous Machine With an Unequal Teeth Width. *IEEE Access*, **2020**, 8, 71512-71524	3.5	5
38	More Robust and Reliable Optimized Energy Conversion Facilitated through Electric Machines, Power Electronics and Drives, and Their Control: State-of-the-Art and Trends. *IEEE Transactions on Energy Conversion*, **2020**, 35, 1997-2012	5.4	8
37	Cogging torque sensitivity considering imperfect magnet positioning for permanent magnet machines of different slot and pole count. *CES Transactions on Electrical Machines and Systems*, **2020**, 4, 243-251	2.3	5
36	Incorporating the Soft Magnetic Material Degradation to Numerical Simulations. *IEEE Transactions on Industry Applications*, **2020**, 1-1	4.3	2
35	Robustness criteria for concurrent evaluation of the impact of tolerances in multiobjective electric machine design optimization. *CES Transactions on Electrical Machines and Systems*, **2020**, 4, 3-12	2.3	4
34	State-of-the-art and future trends in soft magnetic materials characterization with focus on electric machine design Part 1. *TM Technisches Messen*, **2019**, 86, 540-552	0.7	2
33	Local Degradation in Soft Magnetic Materials: A Simplified Modeling Approach. *IEEE Transactions on Industry Applications*, **2019**, 55, 5897-5905	4.3	12
32	Tolerance Analysis for Electric Machine Design Optimization: Classification, Modeling and Evaluation, and Example. *IEEE Transactions on Magnetics*, **2019**, 55, 1-9	2	23
31	State-of-the-art and future trends in soft magnetic materials characterization with focus on electric machine design Part 2. *TM Technisches Messen*, **2019**, 86, 553-565	0.7	2
30	Surface-Mounted and Flux-Switching PM Structures Trade-off for Automotive Smart Actuators **2019**,		1

29	Synchronous Reluctance Rotor Design Considerations based on Winding Configuration **2019**,		3
28	Optimization of Electric Machine Designs - Part II. *IEEE Transactions on Industrial Electronics*, **2018**, 65, 1700-1703	8.9	15
27	. *IEEE Transactions on Industrial Electronics*, **2018**, 65, 7672-7684	8.9	80
26	Design of a rotational iron loss measurement system. *TM Technisches Messen*, **2018**, 85, 233-243	0.7	4
25	Analytical Modeling and Optimization for Electromagnetic Performances of Fractional-Slot PM Brushless Machines. *IEEE Transactions on Industrial Electronics*, **2018**, 65, 4017-4027	8.9	25
24	Reducing Development Time of Electric Machines with SyMSpace **2018**,		14
23	Influence of Hysteresis and Eddy Current Losses on Electric Drive Energy Balance in Driving Cycle Operation **2018**,		2
22	Towards an IE4 Efficiency Class for Induction Motors with Minimal Manufacturer Impact **2018**,		6
21	Investigation and Modeling of Local Degradation in Soft Magnetic Materials **2018**,		6
20	Accurate and Easy-to-Obtain Iron Loss Model for Electric Machine Design. *IEEE Transactions on Industrial Electronics*, **2017**, 64, 2530-2537	8.9	29
19	Surrogate-Based Multi-Objective Optimization of Electrical Machine Designs Facilitating Tolerance Analysis. *IEEE Transactions on Magnetics*, **2017**, 53, 1-11	2	32
18	Computationally Efficient Tolerance Analysis of the Cogging Torque of Brushless PMSMs. *IEEE Transactions on Industry Applications*, **2017**, 53, 3387-3393	4.3	14
17	Optimization of Electric Machine Designs Part I. *IEEE Transactions on Industrial Electronics*, **2017**, 64, 9716-9720	8.9	21
16	Cost-optimal machine designs fulfilling efficiency requirements: A comparison of IMs and PMSMs **2017**,		4
15	Importance of thermal modeling for design optimization scenarios of induction motors **2017**,		4
14	Sizing procedure of surface mounted PM machines for fast analytical evaluations **2017**,		3
13	. *IEEE Transactions on Industry Applications*, **2016**, 52, 4668-4677	4.3	22
12	Design of a measurement system for investigating the magnetic characteristics of soft magnetic materials for non-sinusoidal periodic excitations. *TM Technisches Messen*, **2016**, 83, 317-327	0.7	4

11	Impact of IM pole count on material cost increase for achieving mandatory efficiency requirements **2016**,		5
10	Coupled optimization in MagOpt. *Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering*, **2016**, 230, 291-299	1	7
9	DECMO2: a robust hybrid and adaptive multi-objective evolutionary algorithm. *Soft Computing*, **2015**, 19, 3551-3569	3.5	35
8	Using FE Calculations and Data-Based System Identification Techniques to Model the Nonlinear Behavior of PMSMs. *IEEE Transactions on Industrial Electronics*, **2014**, 61, 6454-6462	8.9	37
7	Identification of a nonlinear PMSM model using symbolic regression and its application to current optimization scenarios **2014**,		16
6	Combined Analytical□Numerical Noise Calculation of Electrical Machines Considering Nonsinusoidal Mode Shapes. *IEEE Transactions on Magnetics*, **2013**, 49, 1407-1415	2	22
5	An Effective Ensemble-Based Method for Creating On-the-Fly Surrogate Fitness Functions for Multi-objective Evolutionary Algorithms **2013**,		4
4	Hybridization of multi-objective evolutionary algorithms and artificial neural networks for optimizing the performance of electrical drives. *Engineering Applications of Artificial Intelligence*, **2013**, 26, 1781-1794	7.2	64
3	A Hybrid Soft Computing Approach for Optimizing Design Parameters of Electrical Drives. *Advances in Intelligent Systems and Computing*, **2013**, 347-358	0.4	16
2	Analytic determination of cogging torque harmonics of brushless permanent magnet machines **2012**,		4
1	Spectral-field design with respect to minimum cogging torque and maximum output power **2010**,		1