# Martin Braun

List of Publications by Year
in descending order

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| 90 | 3,079 | 377584 | 198040 |
|---|---|---|---|
| papers | citations | 21 h-index | 52 g-index |

| 90 | 90 | 90 | 3015 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | The Vision of Self-Management in Cognitive Organic Power Distribution Systems. Energies, 2022, 15, 881. | 1.6 | 2 |
| 2 | Approximating multi-purpose AC Optimal Power Flow with reinforcement trained Artificial Neural Network. Energy and AI, 2022, 7, 100133. | 5.8 | 6 |
| 3 | Impact of Dynamic Electricity Tariff and Home PV System Incentives on Electric Vehicle Charging Behavior: Study on Potential Grid Implications and Economic Effects for Households. Energies, 2022, 15, 1079. | 1.6 | 15 |
| 4 | Application-Oriented Reactive Power Management in German Distribution Systems Using Decentralized Energy Resources. Energies, 2021, 14, 4949. | 1.6 | 3 |
| 5 | Fast parallel Newtonâ€“Raphson power flow solver for large number of system calculations with CPU and GPU. Sustainable Energy, Grids and Networks, 2021, 27, 100483. | 2.3 | 9 |
| 6 | Interdependencies of Infrastructure Investment Decisions in Multi-Energy Systemsâ€”A Sensitivity Analysis for Urban Residential Areas. Smart Cities, 2021, 4, 112-145. | 5.5 | 3 |
| 7 | Active Power Curtailment in Power System Planning. IEEE Open Access Journal of Power and Energy, 2021, 8, 399-408. | 2.5 | 7 |
| 8 | Enabling Power System Transformation Globally: A System Operator Research Agenda for Bulk Power System Issues. IEEE Power and Energy Magazine, 2021, 19, 45-55. | 1.6 | 11 |
| 9 | Multi-Year High-Voltage Power System Planning Considering Active Power Curtailment. Energies, 2020, 13, 4920. | 1.6 | 0 |
| 10 | SimBenchâ€”A Benchmark Dataset of Electric Power Systems to Compare Innovative Solutions Based on Power Flow Analysis. Energies, 2020, 13, 3290. | 1.6 | 96 |
| 11 | A Hybrid Optimization Method Combining Network Expansion Planning and Switching State Optimization. IEEE Open Access Journal of Power and Energy, 2020, 7, 234-242. | 2.5 | 4 |
| 12 | Analysis of Dependencies between Gas and Electricity Distribution Grid Planning and Building Energy Retrofit Decisions. Sustainability, 2020, 12, 5315. | 1.6 | 7 |
| 13 | A GIS-Based Planning Approach for Urban Power and Natural Gas Distribution Grids with Different Heat Pump Scenarios. Energies, 2020, 13, 4052. | 1.6 | 6 |
| 14 | Pandapipes: An Open-Source Piping Grid Calculation Package for Multi-Energy Grid Simulations. Sustainability, 2020, 12, 9899. | 1.6 | 23 |
| 15 | Review of Steady-State Electric Power Distribution System Datasets. Energies, 2020, 13, 4826. | 1.6 | 13 |
| 16 | Comparison of Performance-Assessment Methods for Residential PV Battery Systems. Energies, 2020, 13, 5529. | 1.6 | 3 |
| 17 | Establishment of a Coordinated TSO-DSO Reactive Power Management for INTERPLAN Tool. , 2020, , . | | 5 |
| 18 | Blackouts, Restoration, and Islanding: A System Resilience Perspective. IEEE Power and Energy Magazine, 2020, 18, 54-63. | 1.6 | 18 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Impact of Natural Gas Distribution Network Structure and Operator Strategies on Grid Economy in Face of Decreasing Demand. Energies, 2020, 13, 664. | 1.6 | 9 |
| 20 | Applications of Artificial Neural Networks in the Context of Power Systems. , 2020, , 345-373. | | 1 |
| 21 | Comparison of Meta-Heuristics for the Planning of Meshed Power Systems. , 2020, , . | | 1 |
| 22 | Evaluating machine learning models for the fast identification of contingency cases. Applied AI Letters, 2020, 1, e19. | 1.4 | 1 |
| 23 | Operational optimisation framework improving DSO/TSO coordination demonstrated in real network operation. CIRED - Open Access Proceedings Journal, 2020, 2020, 840-843. | 0.1 | 3 |
| 24 | Prediction of power flow results in time-series-based planning with artificial neural networks and data pre-processing. CIRED - Open Access Proceedings Journal, 2020, 2020, 74-77. | 0.1 | 1 |
| 25 | Evaluation of energy losses in low voltage distribution grids with high penetration of distributed generation. Applied Energy, 2019, 256, 113907. | 5.1 | 18 |
| 26 | Distribution system monitoring for smart power grids with distributed generation using artificial neural networks. International Journal of Electrical Power and Energy Systems, 2019, 113, 472-480. | 3.3 | 69 |
| 27 | A novel indicator for evaluation of the impact of distributed generations on the energy losses of low voltage distribution grids. Applied Energy, 2019, 242, 674-683. | 5.1 | 25 |
| 28 | Competitive crossâ€voltage level procurement of reactive power considering reliable capacity from wind and photovoltaics. Wiley Interdisciplinary Reviews: Energy and Environment, 2019, 8, e338. | 1.9 | 1 |
| 29 | Retrospective Optimal Power Flow for Low Discriminating Active Power Curtailment. , 2019, , . | | 3 |
| 30 | Combined Planning of Medium and Low Voltage Grids. , 2019, , . | | 2 |
| 31 | Cold load pickup model parameters based on measurements in distribution systems. IET Generation, Transmission and Distribution, 2019, 13, 5387-5395. | 1.4 | 8 |
| 32 | Protection and Dynamic Analysis during Bottom-Up Restoration Process in MV/LV Microgrids. , 2019, , . | | 1 |
| 33 | Sizing and Improved Grid Integration of Residential PV Systems With Heat Pumps and Battery Storage Systems. IEEE Transactions on Energy Conversion, 2019, 34, 562-571. | 3.7 | 37 |
| 34 | Control of Photovoltaic Systems for Enhanced Short-Term Voltage Stability and Recovery. IEEE Transactions on Energy Conversion, 2019, 34, 243-254. | 3.7 | 84 |
| 35 | Integration of voltage dependent power injections of distributed generators into the power flow by using a damped Newton method. International Journal of Electrical Power and Energy Systems, 2018, 99, 695-705. | 3.3 | 5 |
| 36 | A survey and statistical analysis of smart grid co-simulations. Applied Energy, 2018, 222, 67-78. | 5.1 | 57 |

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|---|---|---|---|
| 37 | Heuristic optimisation for automated distribution system planning in network integration studies. IET Renewable Power Generation, 2018, 12, 530-538. | 1.7 | 25 |
| 38 | Parallel Operation of Transformers With on Load Tap Changer and Photovoltaic Systems With Reactive Power Control. IEEE Transactions on Smart Grid, 2018, 9, 6419-6428. | 6.2 | 63 |
| 39 | Three-stage power system restoration methodology considering renewable energies. International Journal of Electrical Power and Energy Systems, 2018, 94, 287-299. | 3.3 | 25 |
| 40 | Optimization of unit commitment and economic dispatch in microgrids based on genetic algorithm and mixed integer linear programming. Applied Energy, 2018, 210, 944-963. | 5.1 | 286 |
| 41 | Distributed Self-Healing for Distribution Grids With Evolving Search Space. IEEE Transactions on Power Delivery, 2018, 33, 1755-1764. | 2.9 | 22 |
| 42 | Heuristic monitoring method for sparsely measured distribution grids. International Journal of Electrical Power and Energy Systems, 2018, 95, 146-155. | 3.3 | 10 |
| 43 | Contingency Analysis of Power Systems with Artificial Neural Networks. , 2018, , . | | 8 |
| 44 | Vectorized Calculation of Short Circuit Currents Considering Distributed Generation - An Open Source Implementation of IEC 60909. , 2018, , . | | 9 |
| 45 | An efficient open-source implementation to compute the jacobian matrix for the Newton-Raphson power flow algorithm. , 2018, , . | | 8 |
| 46 | A Flexible MATLAB/Simulink RMS-Framework for Electrical Power Systems Designed for Research and Education. , 2018, , . | | 1 |
| 47 | Modelling of Active Distribution Networks for Power System Restoration Studies. IFAC-PapersOnLine, 2018, 51, 558-563. | 0.5 | 9 |
| 48 | Reactive power management at the transmissionâ€“distribution interface with the support of distributed generators â€“ a grid planning approach. IET Generation, Transmission and Distribution, 2018, 12, 5949-5955. | 1.4 | 19 |
| 49 | Coordinating Smart Inverters with Advanced Distribution Voltage Control Strategies. , 2018, , . | | 7 |
| 50 | Quadratic programming-based grid optimization algorithms for real-time applications. , 2018, , . | | 2 |
| 51 | Performing a Virtual Field Test of a New Monitoring Method for Smart Power Grids. , 2018, , . | | 3 |
| 52 | Analysis of the Impact on the Grounding System in 110 kV Grid during Bottom-up Network Restoration. , 2018, , . | | 2 |
| 53 | The Future of Power System Restoration: Using Distributed Energy Resources as a Force to Get Back Online. IEEE Power and Energy Magazine, 2018, 16, 30-41. | 1.6 | 27 |
| 54 | Hosting capacity of low-voltage grids for distributed generation: Classification by means of machine learning techniques. Applied Soft Computing Journal, 2018, 70, 195-207. | 4.1 | 18 |

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| 55 | A modular approach for co-simulations of integrated multi-energy systems: Coupling multi-energy grids in existing environments of grid planning & operation tools. , 2018, , . | | 10 |
| 56 | Pandapowerâ€"An Open-Source Python Tool for Convenient Modeling, Analysis, and Optimization of Electric Power Systems. IEEE Transactions on Power Systems, 2018, 33, 6510-6521. | 4.6 | 496 |
| 57 | Flexibility potentials of a combined use of heat storages and batteries in PV-CHP hybrid systems. Energy Procedia, 2017, 135, 482-495. | 1.8 | 16 |
| 58 | Heuristic optimisation for network restoration and expansion in compliance with the singleâ€contingency policy. IET Generation, Transmission and Distribution, 2017, 11, 4264-4273. | 1.4 | 11 |
| 59 | Fast network restoration by partitioning of parallel black start zones. Journal of Engineering, 2017, 2017, 418-426. | 0.6 | 4 |
| 60 | Resilient distribution grids â€" cyber threat scenarios and test environment. , 2016, , . | | 8 |
| 61 | Cost-Benefit Analysis of Battery Storage System for Voltage Compliance in Distribution Grids with High Distributed Generation. Energy Procedia, 2016, 99, 215-228. | 1.8 | 13 |
| 62 | Implementation and validation of WECC generic photovoltaic system models in DIgSILENT PowerFactory. , 2016, , . | | 47 |
| 63 | Optimal generation dispatch of distributed generators considering fair contribution to grid voltage control. Renewable Energy, 2016, 87, 946-953. | 4.3 | 14 |
| 64 | Online Optimal Charging Strategy for Electric Vehicles. Energy Procedia, 2015, 73, 173-181. | 1.8 | 14 |
| 65 | Evaluation of interactions between multiple grid operators based on sparse grid knowledge in context of a smart grid co-simulation environment. , 2015, , . | | 11 |
| 66 | Sizing and grid impact of PV battery systems - a comparative analysis for Australia and Germany. , 2015, , . | | 16 |
| 67 | Twilight of the Grids: The Impact of Distributed Solar on Germany?s Energy Transition. IEEE Power and Energy Magazine, 2015, 13, 50-61. | 1.6 | 56 |
| 68 | Control strategies for a decentralized, real-time operation of distribution grids. , 2015, , . | | 7 |
| 69 | Optimization of microgrids short term operation based on an enhanced genetic algorithm. , 2015, , . | | 13 |
| 70 | Preemptive network reinforcement at LV level considering uncertainty in prediction of PV penetration scenarios. , 2015, , . | | 2 |
| 71 | Elektrische Verteilungsnetze im Wandel. , 2015, , 323-344. | | 0 |
| 72 | Optimizing the generator start-up sequence after a power system blackout. , 2014, , . | | 13 |

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|---|---|---|---|
| 73 | Optimizing the reactive power balance between a distribution and transmission grid through iteratively updated grid equivalents. , 2014, , . | | 24 |
| 74 | Evaluation of modeling and simulation complexity on studying the impacts of electrical vehicles fleets in distribution systems. , 2014, , . | | 5 |
| 75 | Dynamic grid support in low voltage grids â€" fault ride-through and reactive power/voltage support during grid disturbances. , 2014, , . | | 31 |
| 76 | Optimizing biogas plants with excess power unit and storage capacity in electricity and control reserve markets. Biomass and Bioenergy, 2014, 65, 125-135. | 2.9 | 61 |
| 77 | Local Voltage Control Strategies for PV Storage Systems in Distribution Grids. IEEE Transactions on Smart Grid, 2014, 5, 1002-1009. | 6.2 | 193 |
| 78 | Time in the Sun: The Challenge of High PV Penetration in the German Electric Grid. IEEE Power and Energy Magazine, 2013, 11, 55-64. | 1.6 | 232 |
| 79 | Development of state estimator for low voltage networks using smart meters measurement data. , 2013, , . | | 10 |
| 80 | Analysis of a reactive power exchange between distribution and transmission grids. , 2013, , . | | 17 |
| 81 | Cost-benefit analysis of central and local voltage control provided by distributed generators in MV networks. , 2013, , . | | 9 |
| 82 | Improved low voltage grid-integration of photovoltaic systems in Germany. , 2013, , . | | 12 |
| 83 | Improved Low Voltage Grid-Integration of Photovoltaic Systems in Germany. IEEE Transactions on Sustainable Energy, 2013, 4, 534-542. | 5.9 | 378 |
| 84 | Technical and economical assessment of voltage control strategies in distribution grids. Progress in Photovoltaics: Research and Applications, 2013, 21, 1292-1307. | 4.4 | 23 |
| 85 | Voltage control capabilities of biogas plants in parallel operation â€" Technical and economical assessment. , 2013, , . | | 1 |
| 86 | Technical and economical assessment of reactive power provision from distributed generators: Case study area of East Denmark. , 2013, , . | | 12 |
| 87 | Development of a control strategy for mini CHP plants for an active voltage management in low voltage networks. , 2012, , . | | 5 |
| 88 | Low voltage system state estimation using smart meters. , 2012, , . | | 40 |
| 89 | Is the distribution grid ready to accept largeâ€scale photovoltaic deployment? State of the art, progress, and future prospects. Progress in Photovoltaics: Research and Applications, 2012, 20, 681-697. | 4.4 | 133 |
| 90 | Plugging into the Zeitgeist. IEEE Power and Energy Magazine, 2009, 7, 63-76. | 1.6 | 41 |