

# Guillaume Crevecoeur

## List of Publications by Citations

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83  
papers

609  
citations

13  
h-index

20  
g-index

100  
ext. papers

774  
ext. citations

3.3  
avg, IF

4.32  
L-index

| #  | Paper   | IF  | Citations |
|----|---|-----|-----------|
| 83 | Analysis of the Local Material Degradation Near Cutting Edges of Electrical Steel Sheets. <i>IEEE Transactions on Magnetics</i> , <b>2008</b> , 44, 3173-3176   | 2   | 46        |
| 82 | Space Mapping Optimization of the Magnetic Circuit of Electrical Machines Including Local Material Degradation. <i>IEEE Transactions on Magnetics</i> , <b>2007</b> , 43, 2609-2611   | 2   | 43        |
| 81 | A Two-Level Genetic Algorithm for Electromagnetic Optimization. <i>IEEE Transactions on Magnetics</i> , <b>2010</b> , 46, 2585-2595   | 2   | 33        |
| 80 | Advancements in Magnetic Nanoparticle Reconstruction Using Sequential Activation of Excitation Coil Arrays Using Magnetorelaxometry. <i>IEEE Transactions on Magnetics</i> , <b>2012</b> , 48, 1313-1316                                  | 2   | 29        |
| 79 | An Inverse Thermal Modeling Approach for Thermal Parameter and Loss Identification in an Axial Flux Permanent Magnet Machine. <i>IEEE Transactions on Industrial Electronics</i> , <b>2019</b> , 66, 1727-1735                            | 8.9 | 26        |
| 78 | An efficient 3-D eddy-current solver using an independent impedance method for transcranial magnetic stimulation. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2011</b> , 58, 310-20   | 5   | 26        |
| 77 | Local Identification of Magnetic Hysteresis Properties Near Cutting Edges of Electrical Steel Sheets. <i>IEEE Transactions on Magnetics</i> , <b>2008</b> , 44, 1010-1013   | 2   | 26        |
| 76 | Two-Level Response and Parameter Mapping Optimization for Magnetic Shielding. <i>IEEE Transactions on Magnetics</i> , <b>2008</b> , 44, 301-308   | 2   | 23        |
| 75 | Transfer Learning in ECG Classification from Human to Horse Using a Novel Parallel Neural Network Architecture. <i>Scientific Reports</i> , <b>2020</b> , 10, 186   | 4.9 | 22        |
| 74 | Modeling transcranial magnetic stimulation from the induced electric fields to the membrane potentials along tractography-based white matter fiber tracts. <i>Journal of Neural Engineering</i> , <b>2016</b> , 13, 026028                | 5   | 17        |
| 73 | Adaptive Control of Excitation Coil Arrays for Targeted Magnetic Nanoparticle Reconstruction Using Magnetorelaxometry. <i>IEEE Transactions on Magnetics</i> , <b>2012</b> , 48, 2842-2845  | 2   | 17        |
| 72 | An Inverse Approach for Magnetic Material Characterization of an EI Core Electromagnetic Inductor. <i>IEEE Transactions on Magnetics</i> , <b>2010</b> , 46, 622-625  | 2   | 17        |
| 71 | Convex Mapping Formulations Enabling Optimal Power Split and Design of the Electric Drivetrain in All-Electric Vehicles. <i>IEEE Transactions on Vehicular Technology</i> , <b>2017</b> , 66, 9702-9711                                   | 6.8 | 13        |
| 70 | Selection of Measurement Modality for Magnetic Material Characterization of an Electromagnetic Device Using Stochastic Uncertainty Analysis. <i>IEEE Transactions on Magnetics</i> , <b>2011</b> , 47, 4564-4573                          | 2   | 13        |
| 69 | Stochastic Uncertainty Quantification of the Conductivity in EEG Source Analysis by Using Polynomial Chaos Decomposition. <i>IEEE Transactions on Magnetics</i> , <b>2010</b> , 46, 3457-3460   | 2   | 13        |
| 68 | The effect of the magnetic nanoparticle size dependence of the relaxation time constant on the specific loss power of magnetic nanoparticle hyperthermia. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2017</b> , 426, 206-210 | 2.8 | 12        |
| 67 | Quantifying the effect of repetitive transcranial magnetic stimulation in the rat brain by BPECT CBF scans. <i>Brain Stimulation</i> , <b>2013</b> , 6, 554-62  | 5.1 | 11        |

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|----|---|-----|----|
| 66 | Reduced conductivity dependence method for increase of dipole localization accuracy in the EEG inverse problem. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2011</b> , 58, 1430-40  | 5   | 11 |
| 65 | Quantitative model selection for enhanced magnetic nanoparticle imaging in magnetorelaxometry. <i>Medical Physics</i> , <b>2015</b> , 42, 6853-62   | 4.4 | 10 |
| 64 | Eddy-Current Simulations Using an Independent Impedance Method in Anisotropic Biological Tissues. <i>IEEE Transactions on Magnetics</i> , <b>2011</b> , 47, 3845-3848   | 2   | 10 |
| 63 | Characterization and optimization of a permanent magnet synchronous machine. <i>COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering</i> , <b>2009</b> , 28, 272-285   | 0.7 | 10 |
| 62 | A Numerical Study on Conductivity Estimation of the Human Head in the Low Frequency Domain Using Induced Current MR Phase Imaging EIT With Multiple Gradients. <i>IEEE Transactions on Magnetics</i> , <b>2013</b> , 49, 5004-5010  | 2   | 8  |
| 61 | Magnetic material identification of a switched reluctance motor. <i>International Journal of Applied Electromagnetics and Mechanics</i> , <b>2011</b> , 37, 35-49   | 0.4 | 8  |
| 60 | Model-based optimized steering and focusing of local magnetic particle concentrations for targeted drug delivery. <i>Drug Delivery</i> , <b>2021</b> , 28, 63-76  | 7   | 8  |
| 59 | . <i>IEEE Transactions on Energy Conversion</i> , <b>2021</b> , 36, 1688-1699   | 5.4 | 8  |
| 58 | Harvesting wind gust energy with small and medium wind turbines using a bidirectional control strategy. <i>Journal of Engineering</i> , <b>2019</b> , 2019, 4261-4266   | 0.7 | 7  |
| 57 | Multi-Objective Predictive Control Optimization with Varying Term Objectives: A Wind Farm Case Study. <i>Processes</i> , <b>2019</b> , 7, 778   | 2.9 | 7  |
| 56 | Inverse Thermal Identification of a Thermally Instrumented Induction Machine Using a Lumped-Parameter Thermal Model. <i>Energies</i> , <b>2020</b> , 13, 37   | 3.1 | 6  |
| 55 | EEG Inverse Problem Solution Using a Selection Procedure on a High Number of Electrodes With Minimal Influence of Conductivity. <i>IEEE Transactions on Magnetics</i> , <b>2011</b> , 47, 874-877   | 2   | 6  |
| 54 | A Robust Inverse Approach for Magnetic Material Characterization in Electromagnetic Devices With Minimum Influence of the Air-Gap Uncertainty. <i>IEEE Transactions on Magnetics</i> , <b>2011</b> , 47, 4364-4367  | 2   | 6  |
| 53 | Validation of the Two-Level Approach for the Solution of the EEG Inverse Problem in an Anisotropic Realistic Head Model. <i>IEEE Transactions on Magnetics</i> , <b>2009</b> , 45, 1670-1673  | 2   | 6  |
| 52 | Experimental ex-vivo validation of PMMA-based bone cements loaded with magnetic nanoparticles enabling hyperthermia of metastatic bone tumors. <i>AIP Advances</i> , <b>2017</b> , 7, 056704  | 1.5 | 5  |
| 51 | A sensor sensitivity and correlation analysis through polynomial chaos in the EEG problem. <i>IMA Journal of Applied Mathematics</i> , <b>2014</b> , 79, 163-174  | 1   | 5  |
| 50 | Two-level refined direct optimization scheme using intermediate surrogate models for electromagnetic optimization of a switched reluctance motor. <i>Engineering With Computers</i> , <b>2012</b> , 28, 199-207   | 4.5 | 5  |
| 49 | Low-parametric induced current - magnetic resonance electrical impedance tomography for quantitative conductivity estimation of brain tissues using a priori information: a simulation study. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2010</b> , 2010, 5668-72 | 0.9 | 5  |

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| 48 | A hybrid algorithm for solving the EEG inverse problem from spatio-temporal EEG data. <i>Medical and Biological Engineering and Computing</i> , <b>2008</b> , 46, 767-77   | 3.1  | 5 |
| 47 | Bayesian Convolutional Neural Networks for Remaining Useful Life Prognostics of Solenoid Valves With Uncertainty Estimations. <i>IEEE Transactions on Industrial Informatics</i> , <b>2021</b> , 17, 8418-8428   | 11.9 | 5 |
| 46 | Neural Network Augmented Physics Models for Systems with Partially Unknown Dynamics: Application to Slider-Crank Mechanism. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2021</b> , 1-1  | 5.5  | 5 |
| 45 | A wave emulator for ocean wave energy, a Froude-scaled dry power take-off test setup. <i>Renewable Energy</i> , <b>2017</b> , 105, 712-721   | 8.1  | 4 |
| 44 | Application of the drag force method to evaluate magnetic property degradation near the cut edges of electrical steels. <i>Journal of Applied Physics</i> , <b>2011</b> , 109, 07E518  | 2.5  | 4 |
| 43 | A priori experimental design for inverse identification of magnetic material properties of an electromagnetic device using uncertainty analysis. <i>COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering</i> , <b>2012</b> , 31, 972-984                        | 0.7  | 4 |
| 42 | Quasi-Static Torque Profile Expressions for Magnetic Resonance-Based Remote Actuation. <i>IEEE Transactions on Energy Conversion</i> , <b>2019</b> , 34, 1255-1263   | 5.4  | 3 |
| 41 | Magnetic nanoparticle imaging by random and maximum length sequences of inhomogeneous activation fields. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2013</b> , 2013, 3258-60 | 0.9  | 3 |
| 40 | Robustness assessment of 1-d electron paramagnetic resonance for improved magnetic nanoparticle reconstructions. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2015</b> , 62, 1635-43  | 5    | 3 |
| 39 | Wind and Solar Intermittency and the Associated Integration Challenges: A Comprehensive Review Including the Status in the Belgian Power System. <i>Energies</i> , <b>2021</b> , 14, 2630  | 3.1  | 3 |
| 38 | Robust Stability Analysis of Interval Fractional-Order Plants With Interval Time Delay and General Form of Fractional-Order Controllers <b>2022</b> , 6, 1268-1273   |      | 3 |
| 37 | Prediction of follower jumps in cam-follower mechanisms: The benefit of using physics-inspired features in recurrent neural networks. <i>Mechanical Systems and Signal Processing</i> , <b>2022</b> , 166, 108453  | 7.8  | 3 |
| 36 | On Entropy Regularized Path Integral Control for Trajectory Optimization. <i>Entropy</i> , <b>2020</b> , 22,   | 2.8  | 2 |
| 35 | Data-Driven Prognostics of Alternating Current Solenoid Valves <b>2020</b> ,   |      | 2 |
| 34 | A framework for robust quadratic optimal control with parametric dynamic model uncertainty using polynomial chaos. <i>Optimal Control Applications and Methods</i> , <b>2020</b> , 41, 833-848   | 1.7  | 2 |
| 33 | A Simple Magnetostatic Sensing Method for Assessing the Local Hysteresis Properties in Ferromagnetic Sheet Materials. <i>Journal of Sensors</i> , <b>2012</b> , 2012, 1-7  | 2    | 2 |
| 32 | Optimization of an Octangular Double-Layered Shield Using Multiple Forward Models. <i>IEEE Transactions on Magnetics</i> , <b>2009</b> , 45, 1586-1589   | 2    | 2 |
| 31 | A Mesoscopic Hysteresis Model Based on the Unconstrained Minimization of the Gibbs Free Energy. <i>IEEE Transactions on Magnetics</i> , <b>2010</b> , 46, 220-223  | 2    | 2 |

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|----|---|-----|---|
| 30 | Adaptive control of a mechatronic system using constrained residual reinforcement learning. <i>IEEE Transactions on Industrial Electronics</i> , <b>2022</b> , 1-1                                | 8.9 | 2 |
| 29 | Data-driven online temperature compensation for robust field-oriented torque-controlled induction machines. <i>IET Electric Power Applications</i> , <b>2019</b> , 13, 1954-1963                  | 1.8 | 2 |
| 28 | Physics-Based Neural Network Models for Prediction of Cam-Follower Dynamics Beyond Nominal Operations. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2021</b> , 1-1                          | 5.5 | 2 |
| 27 | Inverse Methodology for the Parameter Identification of a Lumped Parameter Thermal Network for an Induction Machine <b>2018</b> ,   |     | 2 |
| 26 | Real-Time Energy-Efficient Actuation of Induction Motor Drives Using Approximate Dynamic Programming. <i>IEEE Transactions on Industrial Electronics</i> , <b>2021</b> , 68, 11837-11846          | 8.9 | 2 |
| 25 | Model-based optimal design of a magnetic nanoparticle tomographic imaging setup <b>2018</b> ,   |     | 1 |
| 24 | Data-driven discovery of the heat equation in an induction machine via sparse regression <b>2019</b> ,  |     | 1 |
| 23 | Adaptive state space representations enabling reliable and robust decision-making in asynchronous drives for mechatronic applications <b>2017</b> ,   |     | 1 |
| 22 | Nondestructive Detection of Inhomogeneity in the Magnetic Properties of Materials With a Moving Magnet Hysteresis Comparator. <i>IEEE Transactions on Magnetics</i> , <b>2012</b> , 48, 4409-4412 | 2   | 1 |
| 21 | Influence of noise on EEG source analysis using space mapping techniques. <i>International Journal of Applied Electromagnetics and Mechanics</i> , <b>2007</b> , 25, 383-387                      | 0.4 | 1 |
| 20 | Efficiency Enhancements of Wind Energy Conversion Systems using Soft Switching Multiple Model Predictive Control. <i>IEEE Transactions on Energy Conversion</i> , <b>2021</b> , 1-1               | 5.4 | 1 |
| 19 | Scalable Distributed State Estimation for a Class of State-Saturated Systems Subject to Quantization Effects. <i>IEEE Access</i> , <b>2021</b> , 9, 138724-138733                                 | 3.5 | 1 |
| 18 | Overload Clutch Design for Collision Tolerant HighSpeed Industrial Robots. <i>IEEE Robotics and Automation Letters</i> , <b>2021</b> , 6, 863-870   | 4.2 | 1 |
| 17 | Series and Parallel Capacitor Compensation of the Transmitter in a Magnetic Resonance Based Motoring System <b>2019</b> ,   |     | 1 |
| 16 | About Satisfying String Stability Using Heterogenous Unidirectional Controllers <b>2019</b> ,   |     | 1 |
| 15 | Effect of Transmitter Position on the Torque Generation of a Magnetic Resonance Based Motoring system <b>2019</b> ,   |     | 1 |
| 14 | A Data-Driven Approach Using Deep Learning Time Series Prediction for Forecasting Power System Variables <b>2019</b> ,  |     | 1 |
| 13 | Hybrid derivative functions for identification of unknown loads and physical parameters with application on slider-crank mechanism <b>2019</b> ,  |     | 1 |

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| 12 | Path Integral Policy Improvement with Differential Dynamic Programming <b>2019</b> ,   |      | 1 |
| 11 | Model Predictive Control with a Cascaded Hammerstein Neural Network of a Wind Turbine Providing Frequency Containment Reserve. <i>IEEE Transactions on Energy Conversion</i> , <b>2021</b> , 1-1   | 5.4  | 1 |
| 10 | A trajectory-based sampling strategy for sequentially refined metamodel management of metamodel-based dynamic optimization in mechatronics. <i>Optimal Control Applications and Methods</i> , <b>2018</b> , 39, 1786-1801  | 1.7  | 1 |
| 9  | Physics Informed LSTM Network for Flexibility Identification in Evaporative Cooling System. <i>IEEE Transactions on Industrial Informatics</i> , <b>2022</b> , 1-1   | 11.9 | 1 |
| 8  | Computationally efficient modeling for assessing the energy efficiency of electric drivetrains using convex formulations. <i>International Journal of Numerical Modelling: Electronic Networks, Devices and Fields</i> , <b>2019</b> , 32, e2275   | 1    | 0 |
| 7  | Improving Torque in a Magnetic Resonance Based Motoring System by Detuning From Resonance. <i>IEEE Transactions on Energy Conversion</i> , <b>2021</b> , 36, 1188-1196   | 5.4  | 0 |
| 6  | Robust Stability Analysis of Unstable Second Order Plus Time-Delay (SOPTD) Plant by Fractional-Order Proportional Integral (FOPI) Controllers. <i>Mathematics</i> , <b>2022</b> , 10, 567  | 2.3  | 0 |
| 5  | On cost function transformations for the reduction of uncertain model parameters—Impact towards the optimal solutions. <i>Journal of Computational and Applied Mathematics</i> , <b>2015</b> , 289, 392-399  | 2.4  |   |
| 4  | Adaptive Convex Loss Mappings for Enhanced Loss Assessment in Asynchronous Drives. <i>IEEE Transactions on Control Systems Technology</i> , <b>2019</b> , 27, 1991-2003  | 4.8  |   |
| 3  | Subspace electrode selection methodology for EEG multiple source localization error reduction due to uncertain conductivity values. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2013</b> , 2013, 6191-4 | 0.9  |   |
| 2  | Delay dependent criteria for the consensus of second-order multi-agent systems subject to communication delay. <i>IET Control Theory and Applications</i> , <b>2021</b> , 15, 1724-1735  | 2.5  |   |
| 1  | A Radial Basis Function-Based Optimization Algorithm with Regular Simplex Set Geometry in Ellipsoidal Trust-Regions. <i>Mathematical Problems in Engineering</i> , <b>2022</b> , 2022, 1-21  | 1.1  |   |