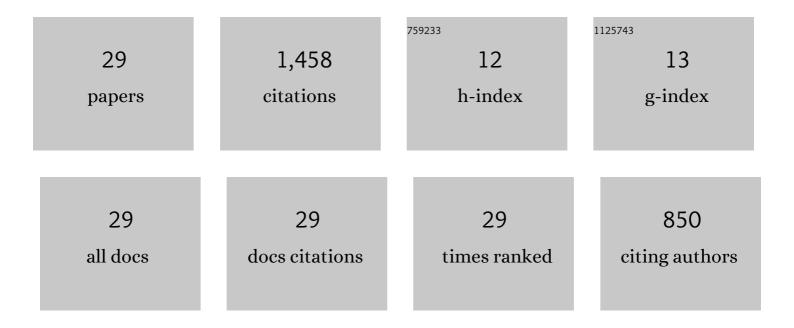
Matthew J Churchfield

List of Publications by Year in descending order

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| # | Article | IF | CITATIONS |
|----|---|------|-----------|
| 1 | A numerical study of the effects of atmospheric and wake turbulence on wind turbine dynamics. Journal of Turbulence, 2012, 13, N14. | 1.4 | 349 |
| 2 | Large eddy simulations of the flow past wind turbines: actuator line and disk modeling. Wind Energy, 2015, 18, 1047-1060. | 4.2 | 190 |
| 3 | A Large-Eddy Simulation of Wind-Plant Aerodynamics. , 2012, , . | | 166 |
| 4 | A large-eddy simulation study of wake propagation and power production in an array of tidal-current turbines. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20120421. | 3.4 | 94 |
| 5 | Guidelines for Volume Force Distributions Within Actuator Line Modeling of Wind Turbines on Large-Eddy Simulation-Type Grids. Journal of Solar Energy Engineering, Transactions of the ASME, 2014, 136, . | 1.8 | 92 |
| 6 | On atmospheric stability in the dynamic wake meandering model. Wind Energy, 2014, 17, 1689-1710. | 4.2 | 58 |
| 7 | Comparison of four large-eddy simulation research codes and effects of model coefficient and inflow turbulence in actuator-line-based wind turbine modeling. Journal of Renewable and Sustainable Energy, 2018, 10, . | 2.0 | 54 |
| 8 | On Bridging A Modeling Scale Gap: Mesoscale to Microscale Coupling for Wind Energy. Bulletin of the American Meteorological Society, 2019, 100, 2533-2550. | 3.3 | 53 |
| 9 | An Advanced Actuator Line Method for Wind Energy Applications and Beyond. , 2017, , . | | 50 |
| 10 | A Comparison of Actuator Disk and Actuator Line Wind Turbine Models and Best Practices for Their Use. , 2012, , . | | 49 |
| 11 | Evaluation of different wind fields for the investigation of the dynamic response of offshore wind turbines. Wind Energy, 2020, 23, 1810-1830. | 4.2 | 46 |
| 12 | Atmospheric and Wake Turbulence Impacts on Wind Turbine Fatigue Loadings. , 2012, , . | | 39 |
| 13 | Load response of a floating wind turbine to turbulent atmospheric flow. Applied Energy, 2019, 242, 1588-1599. | 10.1 | 37 |
| 14 | Two improvements to the dynamic wake meandering model: including the effects of atmospheric shear on wake turbulence and incorporating turbulence buildâ€up in a row of wind turbines. Wind Energy, 2015, 18, 111-132. | 4.2 | 32 |
| 15 | Accuracy of State-of-the-Art Actuator-Line Modeling for Wind Turbine Wakes. , 2013, , . | | 20 |
| 16 | Wind Turbine Wake Characterization from Temporally Disjunct 3-D Measurements. Remote Sensing, 2016, 8, 939. | 4.0 | 20 |
| 17 | Floating platform effects on power generation in spar and semisubmersible wind turbines. Wind Energy, 2021, 24, 901-916. | 4.2 | 20 |
| 18 | A Comparison of the Dynamic Wake Meandering Model, Large-Eddy Simulation, and Field Data at the Egmond aan Zee Offshore Wind Plant. , 2015, , . | | 19 |

| # | Article | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Evaluating tilt for wind plants. , 2017, , . | | 19 |
| 20 | Implementing the Dynamic Wake Meandering Model in the NWTC Design Codes. , 2014, , . | | 11 |
| 21 | Modeling Wind Turbine Tower and Nacelle Effects within an Actuator Line Model. , 2015, , . | | 10 |
| 22 | On the Effects of Wind Turbine Wake Skew Caused by Wind Veer. , 2018, , . | | 10 |
| 23 | Wind Turbine Wake-Redirection Control at the Fishermen's Atlantic City Windfarm. , 2015, , . | | 5 |
| 24 | Validation of Actuator Line and Actuator Disk Models with Filtered Lifting Line Corrections Implemented in Nalu-Wind Large Eddy Simulations of the Atmospheric Boundary Layer. , 2022, , . | | 4 |
| 25 | Considerations in coupling LES of the atmosphere to CFD around wind turbines. , 2012, , . | | 3 |
| 26 | The Effect of Various Actuator-Line Modeling Approaches on Turbine-Turbine Interactions and Wake-Turbulence Statistics in Atmospheric Boundary-Layer Flow. , 2014, , . | | 3 |
| 27 | Validation of Wind Power Plant Modeling Approaches in Complex Terrain. , 2019, , . | | 3 |
| 28 | Development of a Wind Plant Large-Eddy Simulation with Measurement-Driven Atmospheric Inflow. , 2017, , . | | 1 |
| 29 | Evaluating Terrain as a Turbulence Generation Method. Energies, 2021, 14, 6858. | 3.1 | 1 |