

David A Romero

List of Publications by Year in descending order

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52
papers

1,043
citations

430874

18
h-index

477307

29
g-index

52
all docs

52
docs citations

52
times ranked

869
citing authors

#	ARTICLE	IF	CITATIONS
1	Ascending aortic aneurysm haemodynamics are associated with aortic wall biomechanical properties. <i>European Journal of Cardio-thoracic Surgery</i> , 2022, 61, 367-375.	1.4	7
2	Cell Inertia: Predicting Cell Distributions in Lung Vasculature to Optimize Re-endothelialization. <i>Frontiers in Bioengineering and Biotechnology</i> , 2022, 10, 891407.	4.1	2
3	Computational fluid dynamics for enhanced tracheal bioreactor design and long-segment graft recellularization. <i>Scientific Reports</i> , 2021, 11, 1187.	3.3	15
4	Vessel network extraction and analysis of mouse pulmonary vasculature via X-ray micro-computed tomographic imaging. <i>PLoS Computational Biology</i> , 2021, 17, e1008930.	3.2	6
5	Optimizing wind farms layouts for maximum energy production using probabilistic inference: Benchmarking reveals superior computational efficiency and scalability. <i>Energy</i> , 2021, 223, 120035.	8.8	7
6	Optimal design of wind farms in complex terrains using computational fluid dynamics and adjoint methods. <i>Applied Energy</i> , 2020, 261, 114426.	10.1	31
7	Optimization of porous stents for endovascular repair of abdominal aortic aneurysms. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2020, 36, e3336.	2.1	1
8	Challenges in data-based degradation models for lithium-ion batteries. <i>International Journal of Energy Research</i> , 2020, 44, 3954-3975.	4.5	14
9	De-epithelialization of porcine tracheal allografts as an approach for tracheal tissue engineering. <i>Scientific Reports</i> , 2019, 9, 12034.	3.3	31
10	Improving CFD wind farm simulations incorporating wind direction uncertainty. <i>Renewable Energy</i> , 2019, 133, 1011-1023.	8.9	35
11	Analysis and Modifications of Turbulence Models for Wind Turbine Wake Simulations in Atmospheric Boundary Layers. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , 2018, 140, .	1.8	17
12	A novel wake model for wind farm design on complex terrains. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2018, 174, 94-102.	3.9	19
13	Constrained multi-objective wind farm layout optimization: Novel constraint handling approach based on constraint programming. <i>Renewable Energy</i> , 2018, 126, 341-353.	8.9	35
14	Continuous adjoint formulation for wind farm layout optimization: A 2D implementation. <i>Applied Energy</i> , 2018, 228, 2333-2345.	10.1	28
15	Gradient-based multidisciplinary design of wind farms with continuous-variable formulations. <i>Applied Energy</i> , 2017, 197, 279-291.	10.1	35
16	Combinatorial screening of 3D biomaterial properties that promote myofibrogenesis for mesenchymal stromal cell-based heart valve tissue engineering. <i>Acta Biomaterialia</i> , 2017, 58, 34-43.	8.3	24
17	Understanding the Influence of Turbine Geometry and Atmospheric Turbulence on Wind Turbine Wakes. , 2016, , .		0
18	Analysis and Modifications of Turbulence Models for Wind Turbine Wake Simulations in Atmospheric Boundary Layers. , 2016, , .		3

#	ARTICLE	IF	CITATIONS
19	Efficient Wind Turbine Micrositing in Large-Scale Wind Farms. , 2016, , .		3
20	Toward efficient optimization of wind farm layouts: Utilizing exact gradient information. Applied Energy, 2016, 179, 110-123.	10.1	69
21	Coherent phonon transport in short-period two-dimensional superlattices of graphene and boron nitride. Physical Review B, 2016, 93, .	3.2	33
22	Promoting Suitable Hemodynamic Conditions for Thrombus Formation in Abdominal Aortic Aneurysms With Multilayer Stents. , 2016, , .		1
23	Wind farm layout optimization on complex terrains â€œ Integrating a CFD wake model with mixed-integer programming. Applied Energy, 2016, 178, 404-414.	10.1	84
24	The impact of land use constraints in multi-objective energy-noise wind farm layout optimization. Renewable Energy, 2016, 85, 359-370.	8.9	69
25	Error Metrics and the Sequential Refinement of Kriging Metamodels. Journal of Mechanical Design, Transactions of the ASME, 2015, 137, .	2.9	13
26	Constrained Multi-Objective Wind Farm Layout Optimization: Introducing a Novel Constraint Handling Approach Based on Constraint Programming. , 2015, , .		0
27	Predicting Phonon Thermal Transport in Two-Dimensional Graphene-Boron Nitride Superlattices at the Short-Period Limit. , 2015, , .		1
28	Wind Farm Layout Optimization in Complex Terrains Using Computational Fluid Dynamics. , 2015, , .		2
29	A mechanistic semi-empirical wake interaction model for wind farm layout optimization. Energy, 2015, 93, 2157-2165.	8.8	46
30	Multi-Objective Wind Farm Layout Optimization Considering Energy Generation and Noise Propagation With NSGA-II. Journal of Mechanical Design, Transactions of the ASME, 2014, 136, .	2.9	30
31	A new mathematical programming approach to optimize wind farm layouts. Renewable Energy, 2014, 63, 674-680.	8.9	153
32	Solving wind farm layout optimization with mixed integer programs and constraint programs. EURO Journal on Computational Optimization, 2014, 2, 195-219.	2.4	45
33	Multi-Objective Energy-Noise Wind Farm Layout Optimization Under Land Use Constraints. , 2014, , .		1
34	A Novel Wake Interaction Model for Wind Farm Layout Optimization. , 2014, , .		5
35	Predicting Phonon Transport in Two-Dimensional Boron Nitride-Graphene Superlattices. , 2014, , .		0
36	A Multilevel Optimization Method for the Design and Operation of Stand-Alone Hybrid Renewable Energy Systems for Multiple Remote Communities. , 2014, , .		1

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37	Value-Based Global Optimization. Journal of Mechanical Design, Transactions of the ASME, 2014, 136, .	2.9	30
38	Assessment of the Holland model for silicon phonon-phonon relaxation times using lattice dynamics calculations. Journal of Applied Physics, 2013, 113, .	2.5	9
39	Solving Wind Farm Layout Optimization with Mixed Integer Programming and Constraint Programming. Lecture Notes in Computer Science, 2013, , 284-299.	1.3	8
40	Wind Farm Layout Optimization Considering Energy Generation and Noise Propagation. , 2012, , .		24
41	Multiresponse Metamodeling in Simulation-Based Design Applications. Journal of Mechanical Design, Transactions of the ASME, 2012, 134, .	2.9	13
42	Enhanced Thermal Map Prediction and Floor Plan Optimization in Electronic Devices Considering Sub-Continuum Thermal Effects. , 2011, , .		0
43	A Rational Design Approach to Gaussian Process Modeling for Variable Fidelity Models. , 2011, , .		9
44	Improving Multi-Response Metamodels With Upper/Lower Bound Information Using Multi-Stage, Non-Stationary Covariance Functions. , 2010, , .		1
45	A Comparison of Metamodel-Assisted Pre-Screening Criteria for Multi-Objective Genetic Algorithms. , 2009, , .		0
46	A Study of Covariance Functions for Multi-Response Metamodeling for Simulation-Based Design and Optimization. , 2008, , .		1
47	On Adaptive Sampling for Single and Multi-Response Bayesian Surrogate Models. , 2006, , 393.		10
48	Bayesian computer-aided experimental design of heterogeneous scaffolds for tissue engineering. CAD Computer Aided Design, 2005, 37, 1127-1139.	2.7	56
49	Aerogel for Microsystems Thermal Insulation: System Design and Process Development. , 2005, , 753.		2
50	Multi-Stage Bayesian Surrogates for the Design of Time-Dependent Systems. , 2004, , 405.		10
51	Modeling Time-Dependent Systems Using Multi-Stage Bayesian Surrogates. , 2003, , 47.		3
52	Battery Health Diagnosis Approach Integrating Physics-based Modelling with Electrochemical Impedance Spectroscopy. Energy Technology, 0, , .	3.8	1