

Roland Schmehl

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72
papers

1,004
citations

16
h-index

29
g-index

87
ext. papers

1,283
ext. citations

2.8
avg, IF

4.69
L-index

#	Paper	IF	Citations
72	Droplet evaporation modeling by the distillation curve model: accounting for kerosene fuel and elevated pressures. <i>International Journal of Heat and Mass Transfer</i> , 2003 , 46, 4403-4412	4.9	77
71	Airborne Wind Energy. <i>Green Energy and Technology</i> , 2013 ,	0.6	76
70	Discrete-dipole approximation for scattering by features on surfaces by means of a two-dimensional fast Fourier transform technique. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 1997 , 14, 3026	1.8	72
69	Future emerging technologies in the wind power sector: A European perspective. <i>Renewable and Sustainable Energy Reviews</i> , 2019 , 113, 109270	16.2	68
68	Dynamic model of a pumping kite power system. <i>Renewable Energy</i> , 2015 , 83, 705-716	8.1	52
67	Applied Tracking Control for Kite Power Systems. <i>Journal of Guidance, Control, and Dynamics</i> , 2014 , 37, 1211-1222	2.1	52
66	Flight Dynamics and Stability of a Tethered Inflatable Kiteplane. <i>Journal of Aircraft</i> , 2011 , 48, 503-513	1.6	50
65	CFD analysis of spray propagation and evaporation including wall film formation and spray/film interactions. <i>International Journal of Heat and Fluid Flow</i> , 1999 , 20, 520-529	2.4	42
64	Airborne wind energy resource analysis. <i>Renewable Energy</i> , 2019 , 141, 1103-1116	8.1	40
63	Dynamic Nonlinear Aeroelastic Model of a Kite for Power Generation. <i>Journal of Guidance, Control, and Dynamics</i> , 2014 , 37, 1426-1436	2.1	34
62	Design and Experimental Characterization of a Pumping Kite Power System. <i>Green Energy and Technology</i> , 2013 , 403-425	0.6	26
61	Quasi-steady model of a pumping kite power system. <i>Renewable Energy</i> , 2019 , 131, 83-99	8.1	21
60	Modelling Kite Flight Dynamics Using a Multibody Reduction Approach. <i>Journal of Guidance, Control, and Dynamics</i> , 2011 , 34, 1671-1682	2.1	19
59	Aerodynamic characterization of a soft kite by in situ flow measurement. <i>Wind Energy Science</i> , 2019 , 4, 1-21	3.2	19
58	Drag power kite with very high lift coefficient. <i>Renewable Energy</i> , 2018 , 118, 290-305	8.1	17
57	Traction Power Generation with Tethered Wings. <i>Green Energy and Technology</i> , 2013 , 23-45	0.6	17
56	Electricity in the air: Insights from two decades of advanced control research and experimental flight testing of airborne wind energy systems. <i>Annual Reviews in Control</i> , 2021 , 52, 330-330	10.3	16

55	DNS of droplet-vortex interaction with a Karman vortex street. <i>International Journal of Heat and Fluid Flow</i> , 2006 , 27, 181-191	2.4	15
54	A Combined Eulerian and Lagrangian Method for Prediction of Evaporating Sprays. <i>Journal of Engineering for Gas Turbines and Power</i> , 2002 , 124, 481-488	1.7	15
53	Improving reliability and safety of airborne wind energy systems. <i>Wind Energy</i> , 2020 , 23, 340-356	3.4	15
52	Design of a distributed kite power control system 2012 ,		14
51	Aeroelastic Analysis of a Large Airborne Wind Turbine. <i>Journal of Guidance, Control, and Dynamics</i> , 2018 , 41, 2374-2385	2.1	12
50	Aeroelastic Simulation of Flexible Membrane Wings based on Multibody System Dynamics. <i>Green Energy and Technology</i> , 2013 , 287-305	0.6	11
49	Structural analysis and optimization of a tethered swept wing for airborne wind energy generation. <i>Wind Energy</i> , 2020 , 23, 1006-1025	3.4	10
48	A lagrangian flight simulator for airborne wind energy systems. <i>Applied Mathematical Modelling</i> , 2019 , 69, 665-684	4.5	9
47	Power Prediction of Airborne Wind Energy Systems Using Multivariate Machine Learning. <i>Energies</i> , 2020 , 13, 2367	3.1	9
46	Vertical Takeoff and Landing of Flexible Wing Kite Power Systems. <i>Journal of Guidance, Control, and Dynamics</i> , 2018 , 41, 2386-2400	2.1	9
45	Evaluation of Advanced Two-Phase Flow and Combustion Models for Predicting Low Emission Combustors. <i>Journal of Engineering for Gas Turbines and Power</i> , 2001 , 123, 817-823	1.7	9
44	Model-Based Efficiency Analysis of Wind Power Conversion by a Pumping Kite Power System. <i>Green Energy and Technology</i> , 2013 , 249-269	0.6	9
43	Nonlinear Aeroelasticity, Flight Dynamics and Control of a Flexible Membrane Traction Kite. <i>Green Energy and Technology</i> , 2013 , 307-323	0.6	9
42	Modeling and dynamics of a two-line kite. <i>Applied Mathematical Modelling</i> , 2017 , 47, 473-486	4.5	8
41	Cascaded Pumping Cycle Control for Rigid Wing Airborne Wind Energy Systems. <i>Journal of Guidance, Control, and Dynamics</i> , 2019 , 42, 2456-2473	2.1	8
40	Flight-Path Reconstruction and Flight Test of Four-Line Power Kites. <i>Journal of Guidance, Control, and Dynamics</i> , 2018 , 41, 2604-2614	2.1	8
39	Automatic measurement and characterization of the dynamic properties of tethered membrane wings. <i>Wind Energy Science</i> , 2019 , 4, 41-55	3.2	8
38	Boundary layer transition modeling on leading edge inflatable kite airfoils. <i>Wind Energy</i> , 2019 , 22, 908-924	3.4	7

37	Ram-air kite airfoil and reinforcements optimization for airborne wind energy applications. <i>Wind Energy</i> , 2019 , 22, 653-665	3.4	7
36	Flight Path Planning in a Turbulent Wind Environment. <i>Green Energy and Technology</i> , 2018 , 361-390	0.6	7
35	Design and Economics of a Pumping Kite Wind Park. <i>Green Energy and Technology</i> , 2018 , 391-411	0.6	7
34	A Modular Control Architecture for Airborne Wind Energy Systems 2019 ,		7
33	Flight path control of kite power systems in a turbulent wind environment 2016 ,		6
32	Evaluation of Advanced Two-Phase Flow and Combustion Models for Predicting Low Emission Combustors 2000 ,		6
31	Experimental investigation of soft kite performance during turning maneuvers. <i>Journal of Physics: Conference Series</i> , 2018 , 1037, 052004	0.3	6
30	Current and Expected Airspace Regulations for Airborne Wind Energy Systems. <i>Green Energy and Technology</i> , 2018 , 703-725	0.6	5
29	Computational Analysis of the Oxidizer Preflow in an Upper-Stage Rocket Engine. <i>Journal of Propulsion and Power</i> , 2009 , 25, 771-782	1.8	5
28	A Combined Eulerian and Lagrangian Method for Prediction of Evaporating Sprays 2001 ,		4
27	Steady-state aeroelasticity of a ram-air wing for airborne wind energy applications. <i>Journal of Physics: Conference Series</i> , 2020 , 1618, 032018	0.3	3
26	Feed-Forward Control of Kite Power Systems. <i>Journal of Physics: Conference Series</i> , 2014 , 524, 012081	0.3	3
25	Predictions of Transient Fuel Spray Phenomena in the Intake Port of a Si-Engine 2002 ,		3
24	Flash-Evaporation of Oxidizer Spray During Start-Up of an Upper-Stage Rocket Engine 2003 ,		3
23	System identification, fuzzy control and simulation of a kite power system with fixed tether length. <i>Wind Energy Science</i> , 2018 , 3, 275-291	3.2	3
22	Clustering wind profile shapes to estimate airborne wind energy production. <i>Wind Energy Science</i> , 2020 , 5, 1097-1120	3.2	3
21	Reynolds-averaged Navier-Stokes simulations of the flow past a leading edge inflatable wing for airborne wind energy applications. <i>Journal of Physics: Conference Series</i> , 2020 , 1618, 032007	0.3	3
20	Validation of the quasi-steady performance model for pumping airborne wind energy systems. <i>Journal of Physics: Conference Series</i> , 2020 , 1618, 032003	0.3	3

19	Towing Test Data Set of the Kyushu University Kite System. <i>Data</i> , 2020 , 5, 69	2.3	3
18	Identification of kite aerodynamic characteristics using the estimation before modeling technique. <i>Wind Energy</i> , 2021 , 24, 596-608	3.4	3
17	How to harness wind energy with traction kites. <i>Reviews in Environmental Science and Biotechnology</i> , 2015 , 14, 1-4	13.9	2
16	Flight Anomaly Detection for Airborne Wind Energy Systems. <i>Journal of Physics: Conference Series</i> , 2020 , 1618, 032021	0.3	2
15	Reference Design and Simulation Framework of a Multi-Megawatt Airborne Wind Energy System. <i>Journal of Physics: Conference Series</i> , 2020 , 1618, 032020	0.3	2
14	Aero-structural Design of Composite Wings for Airborne Wind Energy Applications. <i>Journal of Physics: Conference Series</i> , 2020 , 1618, 032016	0.3	2
13	An immersed boundary method based on domain decomposition. <i>Computers and Fluids</i> , 2020 , 202, 1045008	0.8	2
12	Adaptive Flight Path Control of Airborne Wind Energy Systems. <i>Energies</i> , 2020 , 13, 667	3.1	2
11	Simulation of the Transition Phase for an Optimally-Controlled Tethered VTOL Rigid Aircraft for Airborne Wind Energy Generation 2020 ,		2
10	The Social Acceptance of Airborne Wind Energy: A Literature Review. <i>Energies</i> , 2022 , 15, 1384	3.1	2
9	Control of a Drag Power Kite over the Entire Wind Speed Range. <i>Journal of Guidance, Control, and Dynamics</i> , 2019 , 42, 2167-2182	2.1	1
8	Immersed boundary methods and their applicability in wind energy. <i>Journal of Physics: Conference Series</i> , 2020 , 1618, 032013	0.3	1
7	Airborne Wind Energy Conversion Using a Rotating Reel System. <i>Green Energy and Technology</i> , 2018 , 539-577	0.6	1
6	A constraint-free flight simulator package for airborne wind energy systems. <i>Journal of Physics: Conference Series</i> , 2018 , 1037, 062018	0.3	1
5	Prediction of light scattering characteristics of particles and structures on surfaces by the coupled-dipole method 1996 , 2725, 690		1
4	Computational Analysis of Automated Transfer Vehicle Reentry Flow and Explosion Assessment. <i>Journal of Spacecraft and Rockets</i> , 2007 , 44, 860-870	1.5	1
3	Downscaling of Airborne Wind Energy Systems. <i>Journal of Physics: Conference Series</i> , 2016 , 753, 102002	0.3	1
2	Enhancing Resilience of Airborne Wind Energy Systems Through Upset Condition Avoidance. <i>Journal of Guidance, Control, and Dynamics</i> , 2021 , 44, 251-265	2.1	1

1 Effect of Chordwise Struts and Misaligned Flow on the Aerodynamic Performance of a Leading-Edge Inflatable Wing. *Energies*, **2022**, 15, 1450

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