Roland Schmehl

List of Publications by Year in Descending Order

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	The Social Acceptance of Airborne Wind Energy: A Literature Review. *Energies*, **2022**, 15, 1384	3.1	2
71	Effect of Chordwise Struts and Misaligned Flow on the Aerodynamic Performance of a Leading-Edge Inflatable Wing. *Energies*, **2022**, 15, 1450	3.1	1
70	Electricity in the air: Insights from two decades of advanced control research and experimental flight testing of airborne wind energy systems. *Annual Reviews in Control*, **2021**, 52, 330-330	10.3	16
69	Identification of kite aerodynamic characteristics using the estimation before modeling technique. *Wind Energy*, **2021**, 24, 596-608	3.4	3
68	Enhancing Resilience of Airborne Wind Energy Systems Through Upset Condition Avoidance. *Journal of Guidance, Control, and Dynamics*, **2021**, 44, 251-265	2.1	1
67	Steady-state aeroelasticity of a ram-air wing for airborne wind energy applications. *Journal of Physics: Conference Series*, **2020**, 1618, 032018	0.3	3
66	Flight Anomaly Detection for Airborne Wind Energy Systems. *Journal of Physics: Conference Series*, **2020**, 1618, 032021	0.3	2
65	Reference Design and Simulation Framework of a Multi-Megawatt Airborne Wind Energy System. *Journal of Physics: Conference Series*, **2020**, 1618, 032020	0.3	2
64	Immersed boundary methods and their applicability in wind energy. *Journal of Physics: Conference Series*, **2020**, 1618, 032013	0.3	1
63	Aero-structural Design of Composite Wings for Airborne Wind Energy Applications. *Journal of Physics: Conference Series*, **2020**, 1618, 032016	0.3	2
62	Power Prediction of Airborne Wind Energy Systems Using Multivariate Machine Learning. *Energies*, **2020**, 13, 2367	3.1	9
61	An immersed boundary method based on domain decomposition. *Computers and Fluids*, **2020**, 202, 104500	2.8	2
60	Structural analysis and optimization of a tethered swept wing for airborne wind energy generation. *Wind Energy*, **2020**, 23, 1006-1025	3.4	10
59	Adaptive Flight Path Control of Airborne Wind Energy Systems. *Energies*, **2020**, 13, 667	3.1	2
58	Clustering wind profile shapes to estimate airborne wind energy production. *Wind Energy Science*, **2020**, 5, 1097-1120	3.2	3
57	Simulation of the Transition Phase for an Optimally-Controlled Tethered VTOL Rigid Aircraft for AirborneWind Energy Generation **2020**,		2
56	Improving reliability and safety of airborne wind energy systems. *Wind Energy*, **2020**, 23, 340-356	3.4	15

(2018-2020)

55	Reynolds-averaged Navier-Stokes simulations of the flow past a leading edge inflatable wing for airborne wind energy applications. *Journal of Physics: Conference Series*, **2020**, 1618, 032007	0.3	3
54	Validation of the quasi-steady performance model for pumping airborne wind energy systems. *Journal of Physics: Conference Series*, **2020**, 1618, 032003	0.3	3
53	Towing Test Data Set of the Kyushu University Kite System. *Data*, **2020**, 5, 69	2.3	3
52	Control of a Drag Power Kite over the Entire Wind Speed Range. *Journal of Guidance, Control, and Dynamics*, **2019**, 42, 2167-2182	2.1	1
51	A lagrangian flight simulator for airborne wind energy systems. *Applied Mathematical Modelling*, **2019**, 69, 665-684	4.5	9
50	Cascaded Pumping Cycle Control for Rigid Wing Airborne Wind Energy Systems. *Journal of Guidance, Control, and Dynamics*, **2019**, 42, 2456-2473	2.1	8
49	Boundary layer transition modeling on leading edge inflatable kite airfoils. *Wind Energy*, **2019**, 22, 908-921	3.4	7
48	Airborne wind energy resource analysis. *Renewable Energy*, **2019**, 141, 1103-1116	8.1	40
47	Ram-air kite airfoil and reinforcements optimization for airborne wind energy applications. *Wind Energy*, **2019**, 22, 653-665	3.4	7
46	Quasi-steady model of a pumping kite power system. *Renewable Energy*, **2019**, 131, 83-99	8.1	21
45	Future emerging technologies in the wind power sector: A European perspective. *Renewable and Sustainable Energy Reviews*, **2019**, 113, 109270	16.2	68
44	Aerodynamic characterization of a soft kite by in situ flow measurement. *Wind Energy Science*, **2019** , 4, 1-21	3.2	19
43	Automatic measurement and characterization of the dynamic properties of tethered membrane wings. *Wind Energy Science*, **2019**, 4, 41-55	3.2	8
42	A Modular Control Architecture for Airborne Wind Energy Systems **2019**,		7
41	Airborne Wind Energy Conversion Using a Rotating Reel System. *Green Energy and Technology*, **2018**, 539-577	0.6	1
40	Current and Expected Airspace Regulations for Airborne Wind Energy Systems. *Green Energy and Technology*, **2018**, 703-725	0.6	5
39	Drag power kite with very high lift coefficient. *Renewable Energy*, **2018**, 118, 290-305	8.1	17
38	Vertical Takeoff and Landing of Flexible Wing Kite Power Systems. *Journal of Guidance, Control, and Dynamics*, **2018**, 41, 2386-2400	2.1	9

37	A constraint-free flight simulator package for airborne wind energy systems. *Journal of Physics: Conference Series*, **2018**, 1037, 062018	0.3	1
36	Flight-Path Reconstruction and Flight Test of Four-Line Power Kites. *Journal of Guidance, Control, and Dynamics*, **2018**, 41, 2604-2614	2.1	8
35	System identification, fuzzy control and simulation of a kite power system with fixed tether length. *Wind Energy Science*, **2018**, 3, 275-291	3.2	3
34	Flight Path Planning in a Turbulent Wind Environment. *Green Energy and Technology*, **2018**, 361-390	0.6	7
33	Design and Economics of a Pumping Kite Wind Park. *Green Energy and Technology*, **2018**, 391-411	0.6	7
32	Experimental investigation of soft kite performance during turning maneuvers. *Journal of Physics: Conference Series*, **2018**, 1037, 052004	0.3	6
31	Aeroelastic Analysis of a Large Airborne Wind Turbine. *Journal of Guidance, Control, and Dynamics*, **2018**, 41, 2374-2385	2.1	12
30	Modeling and dynamics of a two-line kite. *Applied Mathematical Modelling*, **2017**, 47, 473-486	4.5	8
29	Flight path control of kite power systems in a turbulent wind environment **2016**,		6
28	Downscaling of Airborne Wind Energy Systems. *Journal of Physics: Conference Series*, **2016**, 753, 102002	0.3	1
27	How to harness wind energy with traction kites. *Reviews in Environmental Science and Biotechnology*, **2015**, 14, 1-4	13.9	2
26	Dynamic model of a pumping kite power system. *Renewable Energy*, **2015**, 83, 705-716	8.1	52
25	Dynamic Nonlinear Aeroelastic Model of a Kite for Power Generation. *Journal of Guidance, Control, and Dynamics*, **2014**, 37, 1426-1436	2.1	34
24	Feed-Forward Control of Kite Power Systems. *Journal of Physics: Conference Series*, **2014**, 524, 012081	0.3	3
23	Applied Tracking Control for Kite Power Systems. *Journal of Guidance, Control, and Dynamics*, **2014**, 37, 1211-1222	2.1	52
22	Airborne Wind Energy. *Green Energy and Technology*, **2013**,	0.6	76
21	Model-Based Efficiency Analysis of Wind Power Conversion by a Pumping Kite Power System. *Green Energy and Technology*, **2013**, 249-269	0.6	9
20	Aeroelastic Simulation of Flexible Membrane Wings based on Multibody System Dynamics. *Green Energy and Technology*, **2013**, 287-305	0.6	11

19	Nonlinear Aeroelasticity, Flight Dynamics and Control of a Flexible Membrane Traction Kite. *Green Energy and Technology*, **2013**, 307-323	0.6	9
18	Traction Power Generation with Tethered Wings. *Green Energy and Technology*, **2013**, 23-45	0.6	17
17	Design and Experimental Characterization of a Pumping Kite Power System. *Green Energy and Technology*, **2013**, 403-425	0.6	26
16	Design of a distributed kite power control system **2012**,		14
15	Flight Dynamics and Stability of a Tethered Inflatable Kiteplane. *Journal of Aircraft*, **2011**, 48, 503-513	1.6	50
14	Modelling Kite Flight Dynamics Using a Multibody Reduction Approach. *Journal of Guidance, Control, and Dynamics*, **2011**, 34, 1671-1682	2.1	19
13	Computational Analysis of the Oxidizer Preflow in an Upper-Stage Rocket Engine. *Journal of Propulsion and Power*, **2009**, 25, 771-782	1.8	5
12	Computational Analysis of Automated Transfer Vehicle Reentry Flow and Explosion Assessment. *Journal of Spacecraft and Rockets*, **2007**, 44, 860-870	1.5	1
11	DNS of droplet–vortex interaction with a Karman vortex street. *International Journal of Heat and Fluid Flow*, **2006**, 27, 181-191	2.4	15
10	Droplet evaporation modeling by the distillation curve model: accounting for kerosene fuel and elevated pressures. *International Journal of Heat and Mass Transfer*, **2003**, 46, 4403-4412	4.9	77
9	Flash-Evaporation of Oxidizer Spray During Start-Up of an Upper-Stage Rocket Engine **2003**,		3
8	Predictions of Transient Fuel Spray Phenomena in the Intake Port of a Si-Engine **2002**,		3
7	A Combined Eulerian and Lagrangian Method for Prediction of Evaporating Sprays. *Journal of Engineering for Gas Turbines and Power*, **2002**, 124, 481-488	1.7	15
6	Evaluation of Advanced Two-Phase Flow and Combustion Models for Predicting Low Emission Combustors. *Journal of Engineering for Gas Turbines and Power*, **2001**, 123, 817-823	1.7	9
5	A Combined Eulerian and Lagrangian Method for Prediction of Evaporating Sprays **2001**,		4
4	Evaluation of Advanced Two-Phase Flow and Combustion Models for Predicting Low Emission Combustors **2000**,		6
3	CFD analysis of spray propagation and evaporation including wall film formation and spray/film interactions. *International Journal of Heat and Fluid Flow*, **1999**, 20, 520-529	2.4	42
2	Discrete-dipole approximation for scattering by features on surfaces by means of a two-dimensional fast Fourier transform technique. *Journal of the Optical Society of America A: Optics and Image Science, and Vision*, **1997**, 14, 3026	1.8	72

1 Prediction of light scattering characteristics of particles and structures on surfaces by the coupled-dipole method **1996**, 2725, 690 1