

# Stefan Pfenninger

## List of Publications by Year in descending order

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Version: 2024-02-01

42  
papers

5,456  
citations

230014

27  
h-index

325983

40  
g-index

47  
all docs

47  
docs citations

47  
times ranked

5001  
citing authors

#	ARTICLE	IF	CITATIONS
1	High-resolution large-scale onshore wind energy assessments: A review of potential definitions, methodologies and future research needs. <i>Renewable Energy</i> , 2022, 182, 659-684.	4.3	82
2	Diversity of options to eliminate fossil fuels and reach carbon neutrality across the entire European energy system. <i>Joule</i> , 2022, 6, 1253-1276.	11.7	51
3	Meteorologically-informed Spatial Planning of European PV Deployment to Reduce Multiday Generation Variability. <i>Earth's Future</i> , 2022, 10, .	2.4	3
4	The near- to mid-term outlook for concentrating solar power: mostly cloudy, chance of sun. <i>Energy Sources, Part B: Economics, Planning and Policy</i> , 2021, 16, 23-41.	1.8	21
5	Mitigating a century of European renewable variability with transmission and informed siting. <i>Environmental Research Letters</i> , 2021, 16, 064026.	2.2	7
6	Trends in tools and approaches for modelling the energy transition. <i>Applied Energy</i> , 2021, 290, 116731.	5.1	173
7	Trade-Offs between Geographic Scale, Cost, and Infrastructure Requirements for Fully Renewable Electricity in Europe. <i>Joule</i> , 2020, 4, 1929-1948.	11.7	107
8	Policy Decision Support for Renewables Deployment through Spatially Explicit Practically Optimal Alternatives. <i>Joule</i> , 2020, 4, 2185-2207.	11.7	57
9	The NEXUS Solutions Tool (NEST) v1.0: an open platform for optimizing multi-scale energy-water-land system transformations. <i>Geoscientific Model Development</i> , 2020, 13, 1095-1121.	1.3	31
10	Energy self-sufficient households with photovoltaics and electric vehicles are feasible in temperate climate. <i>PLoS ONE</i> , 2020, 15, e0227368.	1.1	9
11	On the potential of "Photovoltaics + Electric vehicles" for deep decarbonization of Kyoto's power systems: Techno-economic-social considerations. <i>Applied Energy</i> , 2020, 275, 115419.	5.1	68
12	Sub-national variability of wind power generation in complex terrain and its correlation with large-scale meteorology. <i>Environmental Research Letters</i> , 2020, 15, 044025.	2.2	15
13	Will policies to promote energy efficiency help or hinder achieving a 1.5°C climate target?. <i>Energy Efficiency</i> , 2019, 12, 551-565.	1.3	23
14	Estimation of losses in solar energy production from air pollution in China since 1960 using surface radiation data. <i>Nature Energy</i> , 2019, 4, 657-663.	19.8	88
15	The dragon awakens: Will China save or conquer concentrating solar power?. <i>AIP Conference Proceedings</i> , 2019, , .	0.3	3
16	Home-made or imported: On the possibility for renewable electricity autarky on all scales in Europe. <i>Energy Strategy Reviews</i> , 2019, 26, 100388.	3.3	60
17	CMIP-5 models project photovoltaics are a no-regrets investment in Europe irrespective of climate change. <i>Energy</i> , 2019, 171, 135-148.	4.5	34
18	Opening the black box of energy modelling: Strategies and lessons learned. <i>Energy Strategy Reviews</i> , 2018, 19, 63-71.	3.3	168

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19	The increasing impact of weather on electricity supply and demand. <i>Energy</i> , 2018, 145, 65-78.	4.5	202
20	Impacts of Inter-annual Wind and Solar Variations on the European Power System. <i>Joule</i> , 2018, 2, 2076-2090.	11.7	137
21	Calliope: a multi-scale energy systems modelling framework. <i>Journal of Open Source Software</i> , 2018, 3, 825.	2.0	129
22	Empirically observed learning rates for concentrating solar power and their responses to regime change. <i>Nature Energy</i> , 2017, 2, .	19.8	136
23	Dealing with multiple decades of hourly wind and PV time series in energy models: A comparison of methods to reduce time resolution and the planning implications of inter-annual variability. <i>Applied Energy</i> , 2017, 197, 1-13.	5.1	236
24	The importance of open data and software: Is energy research lagging behind?. <i>Energy Policy</i> , 2017, 101, 211-215.	4.2	245
25	Balancing Europe's wind-power output through spatial deployment informed by weather regimes. <i>Nature Climate Change</i> , 2017, 7, 557-562.	8.1	236
26	High solar photovoltaic penetration in the absence of substantial wind capacity: Storage requirements and effects on capacity adequacy. <i>Energy</i> , 2017, 137, 193-208.	4.5	16
27	Energy scientists must show their workings. <i>Nature</i> , 2017, 542, 393-393.	13.7	91
28	Long-term patterns of European PV output using 30 years of validated hourly reanalysis and satellite data. <i>Energy</i> , 2016, 114, 1251-1265.	4.5	873
29	Using bias-corrected reanalysis to simulate current and future wind power output. <i>Energy</i> , 2016, 114, 1224-1239.	4.5	771
30	Controlling the self-organizing dynamics in a sandpile model on complex networks by failure tolerance. <i>Europhysics Letters</i> , 2015, 111, 38006.	0.7	13
31	Turning points in climate change adaptation. <i>Ecology and Society</i> , 2015, 20, .	1.0	15
32	Comparing concentrating solar and nuclear power as baseload providers using the example of South Africa. <i>Energy</i> , 2015, 87, 303-314.	4.5	29
33	Renewables, nuclear, or fossil fuels? Scenarios for Great Britain's power system considering costs, emissions and energy security. <i>Applied Energy</i> , 2015, 152, 83-93.	5.1	173
34	Potential for concentrating solar power to provide baseload and dispatchable power. <i>Nature Climate Change</i> , 2014, 4, 689-692.	8.1	146
35	On the limits to solar thermal power: A reply to Trainer. <i>Energy Policy</i> , 2014, 75, 424-425.	4.2	3
36	Energy systems modeling for twenty-first century energy challenges. <i>Renewable and Sustainable Energy Reviews</i> , 2014, 33, 74-86.	8.2	735

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37	Governance Barriers to Renewable Energy in North Africa. <i>International Spectator</i> , 2014, 49, 50-65.	1.0	16
38	Vulnerability of solar energy infrastructure and output to climate change. <i>Climatic Change</i> , 2013, 121, 93-102.	1.7	88
39	Thresholds, tipping and turning points for sustainability under climate change. <i>Current Opinion in Environmental Sustainability</i> , 2013, 5, 334-340.	3.1	85
40	Knowledge and information needs of adaptation policy-makers: a European study. <i>Regional Environmental Change</i> , 2013, 13, 91-101.	1.4	67
41	Introduction to Systems Analysis. , 2013, , .		6
42	Open energy system modelling to support the European Green Deal. <i>F1000Research</i> , 0, 11, 531.	0.8	2