Marius Paulescu

List of Publications by Year
in descending order

93 papers	1,407 citations	411340 20 h-index	406436 35 g-index
96 all docs	96 docs citations	96 times ranked	1177 citing authors

#	Article	IF	Citations
1	A simple but accurate two-state model for nowcasting PV power. Renewable Energy, 2022, 195, 322-330.	4.3	7
2	Nowcasting solar irradiance for effective solar power plants operation and smart grid management. , 2021, , 249-270.		10
3	A one-parameter family of clear-sky solar irradiance models adapted for different aerosol types. Journal of Renewable and Sustainable Energy, 2021, 13, .	0.8	6
4	Quantification of the aerosol-induced errors in solar irradiance modeling. Meteorology and Atmospheric Physics, 2021, 133, 1395-1407.	0.9	4
5	On the Nature of the One-Diode Solar Cell Model Parameters. Energies, 2021, 14, 3974.	1.6	6
6	A new clear sky solar irradiance model. Renewable Energy, 2021, 179, 2094-2103.	4.3	6
7	Spectral Characteristics of Solar Radiation in Timisoara, Romania. Annals of West Univesity of TimiÅŸoara Physics Series, 2021, 63, 154-162.	0.0	0
8	A new perspective on the sunshine duration variability. Theoretical and Applied Climatology, 2020, 139, 1219-1230.	1.3	0
9	A new parameterization of the effective cloud fields. Theoretical and Applied Climatology, 2020, 142, 769-779.	1.3	0
10	Verification of deterministic solar forecasts. Solar Energy, 2020, 210, 20-37.	2.9	142
11	Short-term forecasting of solar irradiance. Renewable Energy, 2019, 143, 985-994.	4.3	32
12	Parameters extraction of the one-diode solar cell model: Performance assessment of different numerical procedures. AIP Conference Proceedings, 2019, , .	0.3	0
13	Parametrization of cloud fields: Simple models for the probability of a clear line-of-sight. AIP Conference Proceedings, 2019, , .	0.3	1
14	Simple vs complex models for solar cells. E3S Web of Conferences, 2019, 85, 04004.	0.2	1
15	A current perspective on the accuracy of incoming solar energy forecasting. Progress in Energy and Combustion Science, 2019, 70, 119-144.	15.8	164
16	Parametric modeling: A simple and versatile route to solar irradiance. Energy Conversion and Management, 2018, 164, 175-187.	4.4	23
17	Retrieval of effective cloud field parameters from radiometric data. Theoretical and Applied Climatology, 2018, 133, 437-446.	1.3	4
18	Nowcasting the Output Power of PV Systems. E3S Web of Conferences, 2018, 61, 00010.	0.2	2

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19	Quantifiers for the solar irradiance variability: A new perspective. Solar Energy, 2018, 174, 606-616.	2.9	29
20	Extracting the I-V Characteristics of the PV Modules from the Manufactureâ€™s Datasheet. Springer Proceedings in Energy, 2018, , 434-442.	0.2	3
21	Online Forecasting of the Solar Energy Production. Annals of West University of Timisoara: Physics, 2018, 60, 104-110.	0.2	1
22	Characterizing the Variability of High Resolution Solar Irradiance Data Series. Springer Proceedings in Energy, 2018, , 337-347.	0.2	0
23	Structured, physically inspired (gray box) models versus black box modeling for forecasting the output power of photovoltaic plants. Energy, 2017, 121, 792-802.	4.5	38
24	Performance assessment of a direct-coupled PV water pumping system. AIP Conference Proceedings, 2017, , .	0.3	1
25	Experimental study of proton irradiation effect on silicon solar cells. AIP Conference Proceedings, 2017, , .	0.3	2
26	Statistical properties of clear and dark duration lengths. Solar Energy, 2017, 153, 508-518.	2.9	4
27	Parameters extraction for the one-diode model of a solar cell. AIP Conference Proceedings, 2017, , .	0.3	14
28	A simplified but accurate UV index model. AIP Conference Proceedings, 2017, , .	0.3	0
29	Assessment of different models for computing the probability of a clear line of sight. AIP Conference Proceedings, 2017, , .	0.3	0
30	MODEL FOR THE UV BIOLOGICALLY EFFECTIVE DOSE AND APPLICATION UNDER FUTURE CLIMATE CONDITIONS. Environmental Engineering and Management Journal, 2017, 16, 225-234.	0.2	0
31	Ã…ngstrÃ¶mâ€“Prescott equation: Physical basis, empirical models and sensitivity analysis. Renewable and Sustainable Energy Reviews, 2016, 62, 495-506.	8.2	71
32	A theoretical framework for Ã…ngstrÃ¶m equation. Its virtues and liabilities in solar energy estimation. Energy Conversion and Management, 2016, 112, 236-245.	4.4	13
33	Empirical versus Optimal Control of Flow in Solar Domestic Hot Water Systems. Journal of Energy Engineering - ASCE, 2016, 142, .	1.0	5
34	A new perspective on the relationship between cloud shade and point cloudiness. Atmospheric Research, 2016, 172-173, 136-146.	1.8	4
35	A new point of view on the relationship between global solar irradiation and sunshine quantifiers. Solar Energy, 2016, 126, 252-263.	2.9	11
36	Reconstruction of effective cloud field geometry from series of sunshine number. Atmospheric Research, 2016, 176-177, 254-266.	1.8	9

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37	Quantification of the Solar Radiative Regime Variability Based on the Clearness Index. Annals of West University of Timisoara: Physics, 2016, 59, 13-17.	0.2	1
38	A Solid State Pyranometer. Annals of West University of Timisoara: Physics, 2015, 58, 56-63.	0.2	0
39	A review of the solar energy database for the Banat plain. AIP Conference Proceedings, 2015, , .	0.3	1
40	A simple but accurate procedure for solving the five-parameter model. Energy Conversion and Management, 2015, 105, 139-148.	4.4	66
41	Tailored vs black-box models for forecasting hourly average solar irradiance. Solar Energy, 2015, 111, 320-331.	2.9	16
42	Cloud shade by dynamic logistic modeling. Journal of Applied Statistics, 2014, 41, 1174-1188.	0.6	6
43	Nowcasting solar irradiance using the sunshine number. Energy Conversion and Management, 2014, 79, 690-697.	4.4	29
44	Generalized additive models for nowcasting cloud shading. Solar Energy, 2014, 101, 272-282.	2.9	13
45	The Assessment of Beam Solar Irradiance Using Parametric Modeling. International Journal of Green Energy, 2014, 11, 876-885.	2.1	4
46	Evaluation of errors made in solar irradiance estimation due to averaging the Angstrom turbidity coefficient. Atmospheric Research, 2014, 150, 69-78.	1.8	10
47	New procedure and field-tests to assess photovoltaic module performance. Energy, 2014, 70, 49-57.	4.5	27
48	TAKAGI-SUGENO ALGORITHM FOR GLOBAL SOLAR IRRADIATION USING AIR TEMPERATURE DATA. Environmental Engineering and Management Journal, 2014, 13, 3045-3051.	0.2	1
49	Nowcasting sunshine number using logistic modeling. Meteorology and Atmospheric Physics, 2013, 120, 61-71.	0.9	11
50	Influence of aerosols pollution on the amount of collectable solar energy. Energy Conversion and Management, 2013, 70, 76-82.	4.4	34
51	Tools for PV (photovoltaic) plant operators: Nowcasting of passing clouds. Energy, 2013, 54, 104-112.	4.5	21
52	Modeling Solar Radiation at the Earth Surface. Green Energy and Technology, 2013, , 127-179.	0.4	21
53	Solar Radiation Measurements. Green Energy and Technology, 2013, , 17-42.	0.4	14
54	Forecasting hourly global solar irradiation using simple non-seasonal models. Journal of Renewable and Sustainable Energy, 2013, 5, .	0.8	4

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55	Forecasting the Power Output of PV Systems. Green Energy and Technology, 2013, , 325-345.	0.4	0
56	Weather Modeling and Forecasting of PV Systems Operation. Green Energy and Technology, 2013, , .	0.4	67
57	Stochastic modeling of sunshine number data. , 2013, , .		0
58	Macro-engineering Australia's Lake Eyre with imported seawater. International Journal of Environment and Sustainable Development, 2013, 12, 264.	0.2	0
59	Atmospheric transmittance model for photosynthetically active radiation. , 2013, , .		2
60	Outdoor Operation of PV Systems. Green Energy and Technology, 2013, , 271-324.	0.4	10
61	Air Temperature-Based Models. Green Energy and Technology, 2013, , 239-269.	0.4	0
62	Stability of the Radiative Regime. Green Energy and Technology, 2013, , 89-126.	0.4	0
63	Fuzzy Logic Approaches. Green Energy and Technology, 2013, , 203-237.	0.4	0
64	State of the Sky Assessment. Green Energy and Technology, 2013, , 43-88.	0.4	0
65	Improving The Accuracy of the Empirical Clear Sky Solar Irradiance Models. Annals of West University of Timisoara: Physics, 2013, 57, 96-101.	0.2	1
66	Procedure of embedding biological action functions into the atmospheric transmittance. Theoretical and Applied Climatology, 2012, 109, 323-332.	1.3	2
67	Statistical properties of the sunshine number illustrated with measurements from Timisoara (Romania). Atmospheric Research, 2011, 101, 194-204.	1.8	43
68	PGO models in the envelope function and effective mass approximations. European Physical Journal B, 2011, 80, 115-120.	0.6	0
69	Autocorrelation properties of the sunshine number and sunshine stability number. Meteorology and Atmospheric Physics, 2011, 112, 139-154.	0.9	19
70	New approach to measure the stability of the solar radiative regime. Theoretical and Applied Climatology, 2011, 103, 459-470.	1.3	55
71	A temperature-based model for global solar irradiance and its application to estimate daily irradiation values. International Journal of Energy Research, 2011, 35, 520-529.	2.2	19
72	A new parametric model for solar irradiance components. , 2011, , .		3

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73	A HYBRID MODEL FOR QUANTUM WELL SOLAR CELLS. International Journal of Modern Physics B, 2010, 24, 2121-2133.	1.0	5
74	ON QUANTUM HYDRODYNAMIC MODELS FOR ELECTRONIC TRANSPORT IN NANOSCALE SEMICONDUCTOR DEVICES. Modern Physics Letters B, 2010, 24, 401-409.	1.0	0
75	UV solar irradiance from broadband radiation and other meteorological data. Atmospheric Research, 2010, 96, 141-148.	1.8	28
76	PSEUDOâ€“GAUSSIAN SUPERLATTICE. International Journal of Modern Physics C, 2010, 21, 1095-1105.	0.8	2
77	SOLAR RADIATION MODELING AND MEASUREMENTS IN TIMISOARA, ROMANIA: DATA AND MODEL QUALITY. Environmental Engineering and Management Journal, 2010, 9, 1089-1095.	0.2	13
78	Macro-Engineering Lake Eyre with Imported Seawater. Environmental Science and Engineering, 2010, , 553-581.	0.1	1
79	THREE-DIMENSIONAL ISOTROPIC PSEUDO-GAUSSIAN OSCILLATORS. International Journal of Modern Physics C, 2009, 20, 1103-1111.	0.8	3
80	Fuzzy modelling of solar irradiation using air temperature data. Theoretical and Applied Climatology, 2008, 91, 181-192.	1.3	28
81	Fuzzy logic algorithms for atmospheric transmittances of use in solar energy estimation. Energy Conversion and Management, 2008, 49, 3691-3697.	4.4	24
82	Modeling and numerical simulation of the transport processes inside DSSC using a monodomain approach. , 2008, , .		0
83	PSEUDO-GAUSSIAN OSCILLATORS. International Journal of Modern Physics C, 2008, 19, 1607-1615.	0.8	8
84	A simple but accurate multiband solar cells model. Proceedings of SPIE, 2008, , .	0.8	0
85	Solar Irradiation via Air Temperature Data. , 2008, , 175-192.		0
86	Applying the Dirac equation to derive the transfer matrix for piecewise constant potentials. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 366, 363-366.	0.9	15
87	Models for obtaining daily global solar irradiation from air temperature data. Atmospheric Research, 2006, 79, 227-240.	1.8	32
88	Solar Architecture Â¿ First Steps in Romania. , 2006, , .		0
89	On the possibility of obtaining silicon carbide using the glow-discharge electron gun. Journal of Materials Processing Technology, 2005, 159, 311-313.	3.1	0
90	ASSESSMENTS ON THE MULTIJUNCTION SOLAR CELLS PHOTOELECTRIC EFFICIENCY RELATED TO THE SEMICONDUCTOR BAND GAP AND OUTDOOR CONDITIONS. Modern Physics Letters B, 2005, 19, 447-457.	1.0	5

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91	Performance assessment of global solar irradiation models under Romanian climate. Renewable Energy, 2004, 29, 767-777.	4.3	61
92	A simplified but accurate spectral solar irradiance model. Theoretical and Applied Climatology, 2003, 75, 203-212.	1.3	65
93	What Ã...ngstrÃ¶mâ€"Prescott equation tells us about the cloud and clear-sky climatologies?. Theoretical and Applied Climatology, 0, , 1.	1.3	0