Lucien Wald

List of Publications by Year
in descending order

142 papers	7,898 citations	101543 36 h-index	54911 84 g-index
168 all docs	168 docs citations	168 times ranked	5027 citing authors

#	Article	IF	Citations
1	Using Copernicus Atmosphere Monitoring Service (CAMS) Products to Assess Illuminances at Ground Level under Cloudless Conditions. Atmosphere, 2021, 12, 643.	2.3	1
2	Which variables are essential for renewable energies?. International Journal of Digital Earth, 2020, 13, 253-261.	3.9	8
3	A New Clear-Sky Method for Assessing Photosynthetically Active Radiation at the Surface Level. Atmosphere, 2019, 10, 219.	2.3	8
4	Monitoring aerosols over Europe: an assessment of the potential benefit of assimilating the VIS04 measurements from the future MTG/FCI geostationary imager. Atmospheric Measurement Techniques, 2019, 12, 1251-1275.	3.1	10
5	Advancing climate services for the European renewable energy sector through capacity building and user engagement. Climate Services, 2019, 16, 100139.	2.5	18
6	Improving the McClear model estimating the downwelling solar radiation at ground level in cloud-free conditionsÂâ€“ McClearâ€‘v3. Meteorologische Zeitschrift, 2019, 28, 147-163.	1.0	47
7	Assessment of Six Different Methods for the Estimation of Surface Ultra-Violet Fluxes at One Location in Uruguay. , 2019, , .		0
8	A fast and simple model to estimate the contribution of the circumsolar irradiance to measured broadband beam irradiance under cloud-free conditions in desert environment. Solar Energy, 2018, 163, 497-509.	6.1	14
9	Patterns of Ultraviolet Radiation Exposure and Skin Cancer Risk: the E3N-SunExp Study. Journal of Epidemiology, 2018, 28, 27-33.	2.4	95
10	Downwelling surface solar irradiance in the tropical Atlantic Ocean: a comparison of re-analyses and satellite-derived data sets to PIRATA measurements. Ocean Science, 2018, 14, 1021-1056.	3.4	30
11	On the intrinsic timescales of temporal variability in measurementsÂofÂthe surface solar radiation. Nonlinear Processes in Geophysics, 2018, 25, 19-37.	1.3	6
12	Chronotype and environmental light exposure in a student population. Chronobiology International, 2018, 35, 1365-1374.	2.0	36
13	A database of 10 min average measurements of solar radiation and meteorological variables in Ostrava, Czech Republic. Earth System Science Data, 2018, 10, 837-846.	9.9	5
14	Nevi, Ambient Ultraviolet Radiation, and Thyroid Cancer Risk. Epidemiology, 2017, 28, 694-702.	2.7	7
15	Spatiotemporal indicators of solar energy potential in the Guiana Shield using GOES images. Renewable Energy, 2017, 111, 11-25.	8.9	15
16	Association of UV radiation with Parkinson disease incidence: A nationwide French ecologic study. Environmental Research, 2017, 154, 50-56.	7.5	18
17	Improving direct normal irradiance retrieval in cloud-free, but high aerosol load conditions by using aerosol optical depth. Meteorologische Zeitschrift, 2017, 26, 475-483.	1.0	5
18	A new method for estimating UV fluxes at ground level in cloud-free conditions. Atmospheric Measurement Techniques, 2017, 10, 4965-4978.	3.1	10

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19	Fast radiative transfer parameterisation for assessing the surface solar irradiance: The Heliosatâ€‘4 method. Meteorologische Zeitschrift, 2017, 26, 33-57.	1.0	141
20	Using ERA-Interim reanalysis for creating datasets ofÂenergy-relevant climate variables. Earth System Science Data, 2017, 9, 471-495.	9.9	37
21	Assessment of Several Empirical Relationships for Deriving Daily Means of UV-A Irradiance from Meteosat-Based Estimates of the Total Irradiance. Remote Sensing, 2016, 8, 537.	4.0	6
22	Characterizing Temporal Variability in Measurements of Surface Solar Radiation and its Dependence on Climate. Energy Procedia, 2016, 97, 164-171.	1.8	5
23	Analysis of the Long-term Evolution of the Solar Resource in China and Its Main Contributors. Energy Procedia, 2016, 91, 1041-1052.	1.8	0
24	Validation of HelioClim-3 Version 4, HelioClim-3 Version 5 and MACC-RAD Using 14 BSRN Stations. Energy Procedia, 2016, 91, 1059-1069.	1.8	27
25	Improving the solar resource estimation in the United Arab Emirates using aerosol and irradiance measurements. , 2016, , .		2
26	A database of multi-year (2004â€“2010) quality-assured surface solar hourly irradiation measurements for the Egyptian territory. Earth System Science Data, 2016, 8, 105-113.	9.9	22
27	Estimating spatial and temporal variations in solar radiation within Bordeaux winegrowing region using remotely sensed data. Oeno One, 2016, 42, 15.	1.4	6
28	Interoperable Exchange of Surface Solar Irradiance Observations: A Challenge. Energy Procedia, 2015, 76, 113-120.	1.8	4
29	Technical Note: A novel parameterization of the transmissivity due to ozone absorption in the <i>k</i>-distribution method and correlated-<i>k</i> approximation of Kato et al. (1999) over the UV band. Atmospheric Chemistry and Physics, 2015, 15, 7449-7456.	4.9	9
30	Can AERONET data be used to accurately model the monochromatic beam and circumsolar irradiances under cloud-free conditions in desert environment?. Atmospheric Measurement Techniques, 2015, 8, 5099-5112.	3.1	8
31	Validation of the Surface Downwelling Solar Irradiance Estimates of the HelioClim-3 Database in Egypt. Remote Sensing, 2015, 7, 9269-9291.	4.0	44
32	Yearly changes in surface solar radiation in New Caledonia. Advances in Science and Research, 2015, 12, 1-4.	1.0	6
33	A Critical Comparison Among Pansharpening Algorithms. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 2565-2586.	6.3	943
34	Validating surface downwelling solar irradiances estimated by the McClear model under cloud-free skies in the United Arab Emirates. Solar Energy, 2015, 114, 17-31.	6.1	27
35	Comparison between meteorological re-analyses from ERA-Interim and MERRA and measurements of daily solar irradiation at surface. Renewable Energy, 2015, 75, 135-143.	8.9	126
36	Estimating the photosynthetically active radiation under clear skies by means of a new approach. Advances in Science and Research, 2015, 12, 5-10.	1.0	16

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37	Optimizing the Heliosat-II Method for Surface Solar Irradiation Estimation with GOES Images. Canadian Journal of Remote Sensing, 2015, 41, 86-100.	2.4	18
38	How close to detailed spectral calculations is the k-distribution method and correlated-k approximation of Kato etâ€‰al. (1999) in each spectral interval?. Meteorologische Zeitschrift, 2014, 23, 547-556.	1.0	13
39	Improving HelioClim-3 estimates of surface solar irradiance using the McClear clear-sky model and recent advances in atmosphere composition. Atmospheric Measurement Techniques, 2014, 7, 3927-3933.	3.1	41
40	A critical comparison of pansharpening algorithms. , 2014, , .		25
41	Estimation of the Circumsolar Ratio in a Turbid Atmosphere. Energy Procedia, 2014, 57, 1169-1178.	1.8	7
42	Twelve monthly maps of ground Albedo parameters derived from MODIS data sets. , 2014, , .		12
43	Corrigendum to "Decoupling the effects of clear atmosphere and clouds to simplify calculations of the broadband solar irradiance at ground level" published in Geosci. Model Dev., 7, 1661â€“1669, 2014. Geoscientific Model Development, 2014, 7, 2409-2409.	3.6	4
44	Direct normal irradiance related definitions and applications: The circumsolar issue. Solar Energy, 2014, 110, 561-577.	6.1	150
45	The HelioClim-1 Database of Daily Solar Radiation at Earth Surface: An Example of the Benefits of GEOSS Data-CORE. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 1745-1753.	4.9	28
46	Decoupling the effects of clear atmosphere and clouds to simplify calculations of the broadband solar irradiance at ground level. Geoscientific Model Development, 2014, 7, 1661-1669.	3.6	32
47	McClear: a new model estimating downwelling solar radiation at ground level in clear-sky conditions. Atmospheric Measurement Techniques, 2013, 6, 2403-2418.	3.1	272
48	Monthly means of daily solar irradiation over Egypt estimated from satellite database and various empirical formulae. International Journal of Remote Sensing, 2013, 34, 8182-8198.	2.9	2
49	On the applicability of the Heliosat-2 method to assess surface solar irradiance in the Intertropical Convergence Zone, French Guiana. International Journal of Remote Sensing, 2013, 34, 3012-3027.	2.9	22
50	Benefit of GEOSS Interoperability in Assessment of Environmental Impacts Illustrated by the Case of Photovoltaic Systems. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2012, 5, 1722-1728.	4.9	9
51	The SG2 algorithm for a fast and accurate computation of the position of the Sun for multi-decadal time period. Solar Energy, 2012, 86, 3072-3083.	6.1	95
52	A Method to Better Account for Modulation Transfer Functions in ARSIS-Based Pansharpening Methods. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 800-808.	6.3	32
53	The HelioClim Project: Surface Solar Irradiance Data for Climate Applications. Remote Sensing, 2011, 3, 343-361.	4.0	130
54	Association of UV radiation with multiple sclerosis prevalence and sex ratio in France. Neurology, 2011, 76, 425-431.	1.1	115

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55	Solar irradiance in clear atmosphere: study of parameterisations of change with altitude. Advances in Science and Research, 2011, 6, 199-203.	1.0	8
56	Study of the MLB parameterisation for change in surface solar irradiance with sun zenith angle in clear sky. Advances in Science and Research, 2011, 6, 233-236.	1.0	3
57	High Spatial Resolution Solar Atlas in Provence-Alpes-CÃ´te d'Azur. , 2011, , .		4
58	Solar Atlas for the Southern and Eastern Mediterranean. , 2011, , .		4
59	The Performances of the Helioclim Databases in Mozambique. , 2011, , .		1
60	Assessing surface solar irradiance and its long-term variations in the northern Africa desert climate using Meteosat images. International Journal of Remote Sensing, 2010, 31, 261-280.	2.9	39
61	Data Fusion in Remote Sensing of Urban and Suburban Areas. Remote Sensing and Digital Image Processing, 2010, , 193-218.	0.7	2
62	Analysis of the influences of uncertainties in input variables on the outcomes of the Heliosat-2 method. Solar Energy, 2009, 83, 1731-1741.	6.1	21
63	Synthesis of Multispectral Images to High Spatial Resolution: A Critical Review of Fusion Methods Based on Remote Sensing Physics. IEEE Transactions on Geoscience and Remote Sensing, 2008, 46, 1301-1312.	6.3	518
64	Using remotely sensed solar radiation data for reference evapotranspiration estimation at a daily time step. Agricultural and Forest Meteorology, 2008, 148, 619-630.	4.8	75
65	Adding virtual measuring stations to a network for urban air pollution mapping. Environment International, 2008, 34, 599-605.	10.0	18
66	Damage Assessment on Buildings using Multisensor Multimodal Very High Resolution Images and Ancillary Data. , 2008, , .		7
67	Object oriented assessment of damage due to natural disaster using very high resolution images. , 2007, , .		17
68	Quantitative Assessment Of Building Damage In Urban Area Using Very High Resolution Images. , 2007, , .		5
69	Using reduced data sets ISCCP-B2 from the Meteosat satellites to assess surface solar irradiance. Solar Energy, 2007, 81, 240-253.	6.1	83
70	Comparison of Pansharpening Algorithms: Outcome of the 2006 GRS-S Data-Fusion Contest. IEEE Transactions on Geoscience and Remote Sensing, 2007, 45, 3012-3021.	6.3	692
71	Analysis of Changes in Quality Assessment with Scale. , 2006, , .		7
72	A MTF-Based Distance for the Assessment of Geometrical Quality of Fused Products. , 2006, , .		8

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73	Converting a successful research project into a sustainable service: The case of the SoDa Web service. Environmental Modelling and Software, 2006, 21, 1555-1561.	4.5	62
74	OSIrIS: a physically based simulation tool to improve training in thermal infrared remote sensing over urban areas at high spatial resolution. Remote Sensing of Environment, 2006, 104, 238-246.	11.0	13
75	Simulating Meteosat-7 broadband radiances using two visible channels of Meteosat-8. Solar Energy, 2006, 80, 361-367.	6.1	41
76	Aerosols detection for urban air pollution monitoring. , 2006, , .		1
77	Data Fusion Contest: Fusion of Panchromatic and Multispectral Images. , 2006, , .		1
78	Towards Designing an Integrated Earth Observation System for the Provision of Solar Energy Resource and Assessment. , 2006, , .		1
79	Individual sun exposure can be assessed using meteorologic satellite measurements. Epidemiology, 2006, 17, S245.	2.7	0
80	UV-France. Measurement of Individual and Population Exposure to Ultraviolet Radiation Based on Data from Meteorological Satellites. Epidemiology, 2006, 17, S306.	2.7	1
81	Solar radiation climate in Africa. Solar Energy, 2004, 76, 733-744.	6.1	73
82	The method Heliosat-2 for deriving shortwave solar radiation from satellite images. Solar Energy, 2004, 77, 159-169.	6.1	401
83	Rethinking satellite-based solar irradiance modellingThe SOLIS clear-sky module. Remote Sensing of Environment, 2004, 91, 160-174.	11.0	194
84	Linke turbidity factors for several sites in Africa. Solar Energy, 2003, 75, 111-119.	6.1	36
85	Image fusionâ€"the ARSIS concept and some successful implementation schemes. ISPRS Journal of Photogrammetry and Remote Sensing, 2003, 58, 4-18.	11.1	299
86	Different implementations of the ARSIS concept to fulfill users needs. , 2003, , .		2
87	The ARSIS concept in image fusion: an answer to users needs. , 2003, , .		3
88	Increasing the spatial resolution of gridded data by fusion with other data sets. , 2003, , .		2
89	The Operational Calibration of Images Taken in the Visible Channel of the Meteosat Series of Satellites. Journal of Atmospheric and Oceanic Technology, 2002, 19, 1285-1293.	1.3	23
90	Liu 'Smoothing filter-based intensity modulation: A spectral preserve image fusion technique for improving spatial details'. International Journal of Remote Sensing, 2002, 23, 593-597.	2.9	60

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91	A web service for controlling the quality of measurements of global solar irradiation. Solar Energy, 2002, 73, 475-480.	6.1	151
92	Specifications and conceptual architecture of a thermal infrared simulator of landscapes. , 2001, , .		2
93	The European Solar Radiation Atlas: a valuable digital tool. Solar Energy, 2001, 71, 81-83.	6.1	50
94	On the clear sky model of the ESRA â€" European Solar Radiation Atlas â€" with respect to the heliosat method. Solar Energy, 2000, 68, 33-48.	6.1	413
95	A Conceptual Approach To The Fusion Of Earth Observation Data. Surveys in Geophysics, 2000, 21, 177-186.	4.6	10
96	An automatic method for the calibration of time-series of Meteosat images. International Journal of Remote Sensing, 2000, 21, 1025-1045.	2.9	16
97	The Helioclim Project. , 2000, , 427-431.		2
98	A Climatological Database of the Linke Turbidity Factor. , 2000, , 432-434.		4
99	Observing air quality over the city of Nantes by means of Landsat thermal infrared data. International Journal of Remote Sensing, 1999, 20, 947-959.	2.9	52
100	Some terms of reference in data fusion. IEEE Transactions on Geoscience and Remote Sensing, 1999, 37, 1190-1193.	6.3	388
101	Joint analysis of temperature and ocean colour satellite images for mesoscale activities in the Gulf of Biscay. International Journal of Remote Sensing, 1999, 20, 1329-1341.	2.9	12
102	Using iterated rational filter banks within the ARSIS concept for producing 10m Landsat multispectral images. International Journal of Remote Sensing, 1998, 19, 2331-2343.	2.9	46
103	Benefit of the future SPOT-5 and of data fusion to urban roads mapping. International Journal of Remote Sensing, 1998, 19, 1519-1532.	2.9	32
104	A simulator of images in the infrared spectral band for training users. , 1998, , .		0
105	<title>Data fusion of remotely sensed images using wavelet transform: the ARSIS solution</title>. , 1997, , .		6
106	<title>S.P.I.Rou.: a landscape synthesis tool in the infrared spectral band</title>. , 1997, 3085, 226.		0
107	Assessment of the method used to construct clearness index maps for the new European Solar Radiation Atlas (ESRA). Solar Energy, 1997, 61, 389-397.	6.1	41
108	Fusion of images and raster-maps of different spatial resolutions by encrustation: An improved approach. Computers, Environment and Urban Systems, 1995, 19, 77-87.	7.1	5

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109	The wavelet transform for the analysis of remotely sensed images. International Journal of Remote Sensing, 1993, 14, 615-619.	2.9	99
110	Technical note A low-cost high-quality system for the acquisition and digital processing of images of WEFAX type provided by meteorological geostationary satellites. International Journal of Remote Sensing, 1992, 13, 911-916.	2.9	3
111	A geographical information system for some Mediterranean benthic communities. International Journal of Geographical Information Science, 1990, 4, 79-86.	4.8	9
112	Monitoring the decrease of lake Chad from space. Geocarto International, 1990, 5, 31-36.	3.5	12
113	Using geographical information system and satellite imagery within a numerical simulation of regional urban growth. International Journal of Geographical Information Science, 1990, 4, 445-456.	4.8	52
114	Mapping the ground albedo of western africa and its time evolution during 1984 using meteosat visible data. Remote Sensing of Environment, 1989, 27, 221-232.	11.0	6
115	Description of an operational tool for determining global solar radiation at ground using geostationary satellite images. Solar Energy, 1989, 42, 201-207.	6.1	62
116	A method for the mapping of the apparent ground brightness using visible images from geostationary satellites. International Journal of Remote Sensing, 1989, 10, 1207-1225.	2.9	36
117	Estimating Incident Solar Radiation at the Surface from Images of the Earth Transmitted by Geostationary Satellites: the Heliosat Project. International Journal of Solar Energy, 1987, 5, 261-278.	0.2	53
118	A method for the determination of the global solar radiation from meteorological satellite data. Solar Energy, 1986, 37, 31-39.	6.1	465
119	Atmospheric lee waves in the Aegean Sea and their possible influence on the sea surface. Boundary-Layer Meteorology, 1984, 28, 309-315.	2.3	0
120	A Large Scale Monitoring of the Hydrocarbons Pollution from the Landsat Satellite. , 1984, , 347-358.		1
121	Sea surface winds from sun glitter observations. Journal of Geophysical Research, 1983, 88, 2547-2555.	3.3	25
122	Remote sensing of the sea-state using the 0.8-1.1 Î¼m spectral band. International Journal of Remote Sensing, 1983, 4, 433-446.	2.9	13
123	Lowâ€frequency waves in the Ligurian Sea during December 1977. Journal of Geophysical Research, 1982, 87, 595-600.	3.3	71
124	Upwelling in the Gulf of Lions. Coastal and Estuarine Sciences, 1981, , 160-166.	0.3	14
125	Satellite Determination of the Mesoscale Variability of the Sea Surface Temperature. Journal of Physical Oceanography, 1981, 11, 864-870.	1.7	46
126	Comments on the â€œSpatial Variability of Coastal Surface Water Temperature during Upwelling". Journal of Physical Oceanography, 1980, 10, 1303-1303.	1.7	0

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127	Use of a simulator for the study of the sensitivity of the signal sensed by the MERIS spectrometer. , 0, , .		1
128	Satellite-based estimation of surface solar irradiance. SPIE Newsroom, 0, , .	0.1	4
129	On the effective solar zenith and azimuth angles to use with measurements of hourly irradiation. Advances in Science and Research, 0, 13, 1-6.	1.0	7
130	On the temporal variability of the surface solar radiation by means of spectral representations. Advances in Science and Research, 0, 13, 121-127.	1.0	6
131	Validation of the new HelioClim-3 version 4 real-time and short-term forecast service using 14 BSRN stations. Advances in Science and Research, 0, 13, 129-136.	1.0	13
132	Validation of the McClear clear-sky model in desert conditions with three stations in Israel. Advances in Science and Research, 0, 13, 21-26.	1.0	15
133	Validation of three satellite-derived databases of surface solar radiation using measurements performed at 42 stations in Brazil. Advances in Science and Research, 0, 13, 81-86.	1.0	26
134	Do modelled or satellite-based estimates of surface solar irradiance accurately describe its temporal variability?. Advances in Science and Research, 0, 14, 35-48.	1.0	13
135	Evaluating meso-scale change in performance of several databases of hourly surface irradiation in South-eastern Arabic Pensinsula. Advances in Science and Research, 0, 14, 7-15.	1.0	12
136	Creating a proof-of-concept climate service to assess future renewable energy mixes in Europe: An overview of the C3S ECEM project. Advances in Science and Research, 0, 15, 191-205.	1.0	21
137	Comparison of several satellite-derived databases of surface solar radiation against ground measurement in Morocco. Advances in Science and Research, 0, 15, 21-29.	1.0	25
138	An approach for the estimation of the aggregated photovoltaic power generated in several European countries from meteorological data. Advances in Science and Research, 0, 15, 51-62.	1.0	21
139	Verifying the spatial consistency of the CAMS Radiation Service and HelioClim-3 satellite-derived databases of solar radiation using a dense network of measuring stations: the case of The Netherlands. Advances in Science and Research, 0, 16, 103-111.	1.0	10
140	Performance of CAMS Radiation Service and HelioClim-3 databases of solar radiation at surface: evaluating the spatial variation in Germany. Advances in Science and Research, 0, 17, 143-152.	1.0	10
141	Monthly solar radiation in the tropical Atlantic Ocean: Can its spatial variations be captured by the current configuration of the PIRATA moorings?. Advances in Science and Research, 0, 15, 127-136.	1.0	0
142	Assessment of five different methods for the estimation of surface photosynthetically active radiation from satellite imagery at three sites â€“ application to the monitoring of indoor soft fruit crops in southern UK. Advances in Science and Research, 0, 16, 229-240.	1.0	3