

Giovanni Macelloni

List of Publications by Year in descending order

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Version: 2024-02-01

140
papers

2,369
citations

236925

25
h-index

233421

45
g-index

148
all docs

148
docs citations

148
times ranked

2337
citing authors

#	ARTICLE	IF	CITATIONS
1	The relationship between the backscattering coefficient and the biomass of narrow and broad leaf crops. IEEE Transactions on Geoscience and Remote Sensing, 2001, 39, 873-884.	6.3	183
2	Changing Arctic snow cover: A review of recent developments and assessment of future needs for observations, modelling, and impacts. Ambio, 2016, 45, 516-537.	5.5	154
3	Cold Regions Hydrology High-Resolution Observatory for Snow and Cold Land Processes. Proceedings of the IEEE, 2010, 98, 752-765.	21.3	148
4	A multifrequency algorithm for the retrieval of soil moisture on a large scale using microwave data from SMMR and SSM/I satellites. IEEE Transactions on Geoscience and Remote Sensing, 2001, 39, 1655-1661.	6.3	146
5	Soil Moisture Estimates From AMSR-E Brightness Temperatures by Using a Dual-Frequency Algorithm. IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 3135-3144.	6.3	110
6	ESA's Soil Moisture and Ocean Salinity mission: From science to operational applications. Remote Sensing of Environment, 2016, 180, 3-18.	11.0	77
7	An algorithm for generating soil moisture and snow depth maps from microwave spaceborne radiometers: HydroAlgo. Hydrology and Earth System Sciences, 2012, 16, 3659-3676.	4.9	68
8	Event-driven deposition of snow on the Antarctic Plateau: analyzing field measurements with SNOWPACK. Cryosphere, 2013, 7, 333-347.	3.9	67
9	The potential of C- and L-band SAR in estimating vegetation biomass: the ERS-1 and JERS-1 experiments. IEEE Transactions on Geoscience and Remote Sensing, 1999, 37, 2107-2110.	6.3	62
10	Experimental validation of surface scattering and emission models. IEEE Transactions on Geoscience and Remote Sensing, 2000, 38, 459-469.	6.3	60
11	Microwave emission from dry snow: a comparison of experimental and model results. IEEE Transactions on Geoscience and Remote Sensing, 2001, 39, 2649-2656.	6.3	55
12	Radiometric Approach for Estimating Relative Changes in Intraglacier Average Temperature. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 134-143.	6.3	53
13	DOMEX 2004: An Experimental Campaign at Dome-C Antarctica for the Calibration of Spaceborne Low-Frequency Microwave Radiometers. IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 2642-2653.	6.3	51
14	European In-Situ Snow Measurements: Practices and Purposes. Sensors, 2018, 18, 2016.	3.8	50
15	Airborne multifrequency L- to Ka-band radiometric measurements over forests. IEEE Transactions on Geoscience and Remote Sensing, 2001, 39, 2507-2513.	6.3	49
16	Multifrequency Microwave Emission From the Dome-C Area on the East Antarctic Plateau: Temporal and Spatial Variability. IEEE Transactions on Geoscience and Remote Sensing, 2007, 45, 2029-2039.	6.3	49
17	The SIR-C/X-SAR experiment on Montespertoli: Sensitivity to hydrological parameters. International Journal of Remote Sensing, 1999, 20, 2597-2612.	2.9	45
18	Sensitivity of bistatic scattering to soil moisture and surface roughness of bare soils. International Journal of Remote Sensing, 2010, 31, 4227-4255.	2.9	45

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19	Physical Models of Layered Polar Firn Brightness Temperatures From 0.5 to 2 GHz. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 3681-3691.	4.9	44
20	500-2000-MHz Brightness Temperature Spectra of the Northwestern Greenland Ice Sheet. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 1485-1496.	6.3	42
21	Retrieval of Effective Correlation Length and Snow Water Equivalent from Radar and Passive Microwave Measurements. Remote Sensing, 2018, 10, 170.	4.0	42
22	Global scale monitoring of soil and vegetation using SSM/I and ERS wind scatterometer. International Journal of Remote Sensing, 2003, 24, 2409-2425.	2.9	41
23	Monitoring of melting refreezing cycles of snow with microwave radiometers: the Microwave Alpine Snow Melting Experiment (MASMEx 2002-2003). IEEE Transactions on Geoscience and Remote Sensing, 2005, 43, 2431-2442.	6.3	41
24	Ground-Based L-Band Emission Measurements at Dome-C Antarctica: The DOMEX-2 Experiment. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 4718-4730.	6.3	32
25	Monitoring Snow Characteristics With Ground-Based Multifrequency Microwave Radiometry. IEEE Transactions on Geoscience and Remote Sensing, 2009, 47, 3643-3655.	6.3	30
26	The Ultrawideband Software-Defined Microwave Radiometer: Instrument Description and Initial Campaign Results. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 5923-5935.	6.3	27
27	The Sensitivity of Cosmo-SkyMed Backscatter to Agricultural Crop Type and Vegetation Parameters. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 2856-2868.	4.9	26
28	Study of the snow melt-freeze cycle using multi-sensor data and snow modeling. Journal of Glaciology, 2004, 50, 419-426.	2.2	25
29	Monitoring sea-ice and dry snow with GNSS reflections. , 2010, , .		24
30	Passive Polarimetric Microwave Signatures Observed Over Antarctica. IEEE Transactions on Geoscience and Remote Sensing, 2010, 48, 1059-1075.	6.3	24
31	Simulating Multifrequency Ground-Based Radiometric Measurements at Dome C Antarctica. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 4405-4417.	4.9	24
32	The Contribution of Multitemporal SAR Data in Assessing Hydrological Parameters. IEEE Geoscience and Remote Sensing Letters, 2004, 1, 201-205.	3.1	23
33	Observations and Simulation of Multifrequency SAR Data Over a Snow-Covered Boreal Forest. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 1216-1228.	4.9	23
34	On the retrieval of internal temperature of Antarctica Ice Sheet by using SMOS observations. Remote Sensing of Environment, 2019, 233, 111405.	11.0	23
35	Analyzing and modeling the SMOS spatial variations in the East Antarctic Plateau. Remote Sensing of Environment, 2016, 180, 193-204.	11.0	20
36	Observation and Modeling of X- and Ku-Band Backscatter of Snow-Covered Freshwater Lake Ice. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 3629-3642.	4.9	17

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37	Greenland Ice Sheet Subsurface Temperature Estimation Using Ultrawideband Microwave Radiometry. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-12.	6.3	17
38	Melt in Antarctica derived from Soil Moisture and Ocean Salinity (SMOS) observations at L-Band. Cryosphere, 2020, 14, 539-548.	3.9	16
39	Microwave Radiometry at Frequencies From 500 to 1400 MHz: An Emerging Technology for Earth Observations. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 4894-4914.	4.9	16
40	Remote Sensing of Sea Ice Thickness and Salinity With 0.5-2 GHz Microwave Radiometry. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 8672-8684.	6.3	15
41	Exploiting the ANN Potential in Estimating Snow Depth and Snow Water Equivalent From the Airborne SnowSAR Data at X- and Ku-Bands. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-16.	6.3	13
42	Active and passive microwave measurements for the characterization of soils and crops. Agronomy for Sustainable Development, 2002, 22, 581-586.	0.8	13
43	Modelling radar backscatter from crops during the growth cycle. Agronomy for Sustainable Development, 2002, 22, 575-579.	0.8	13
44	Effect of forests on the retrieval of snow parameters from backscatter measurements. European Journal of Remote Sensing, 2012, 45, 121-132.	3.5	12
45	Multi-year record of atmospheric and snow surface nitrate in the central Antarctic plateau. Chemosphere, 2017, 172, 341-354.	8.2	12
46	Influence of snow surface properties on L-band brightness temperature at Dome C, Antarctica. Remote Sensing of Environment, 2017, 199, 427-436.	11.0	12
47	The Ultra-wideband Software-Defined Radiometer (UWBRAD) for ice sheet internal temperature sensing: Results from recent observations. , 2016, , .		11
48	Cryorad: A Low Frequency Wideband Radiometer Mission for the Study of the Cryosphere. , 2018, , .		10
49	Understanding SMOS data in Antarctica. , 2014, , .		9
50	DOMEX 2004: an experimental campaign at dome-C Antarctica for the calibration of space-borne low-frequency microwave radiometers. , 0, , .		8
51	HydroCosmo: The Monitoring of Hydrological Parameters on Agricultural Areas by using Cosmo-SkyMed Images. European Journal of Remote Sensing, 2013, 46, 875-889.	3.5	8
52	CoReH<inf>2</inf>O, a dual frequency radar mission for snow and ice observations. , 2012, , .		7
53	Retrieval of the Absorption Coefficient of L-Band Radiation in Antarctica From SMOS Observations. Remote Sensing, 2018, 10, 1954.	4.0	7
54	500-2000-MHz Airborne Brightness Temperature Measurements Over the East Antarctic Plateau. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	3.1	7

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55	The retrieval and monitoring of vegetation parameters from COSMO-SkyMed images. , 2012, , .		6
56	Analysis of ice-sheet temperature profiles from low-frequency airborne remote sensing. Journal of Glaciology, 0, , 1-11.	2.2	6
57	Effects of spatial inhomogeneities and microwave emission enhancement in random media: an experimental study. IEEE Transactions on Geoscience and Remote Sensing, 1996, 34, 1084-1089.	6.3	5
58	Multitemporal analysis of AMSR-E data: a large scale monitoring of Earth's surface parameters. , 0, , .		5
59	The Ultra-Wideband Software Defined Microwave Radiometer (UWBRAD) for Ice sheet subsurface temperature sensing: Calibration and campaign results. , 2017, , .		5
60	Marked decrease in the near-surface snow density retrieved by AMSR-E satellite at Dome A, Antarctica, between 2002 and 2011. Cryosphere, 2019, 13, 1215-1232.	3.9	5
61	Studies of Sea-Ice Thickness and Salinity Retrieval Using 0.5-2 GHz Microwave Radiometry. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-12.	6.3	5
62	Microwave emission features of crops with vertical stems. IEEE Transactions on Geoscience and Remote Sensing, 1998, 36, 332-337.	6.3	4
63	Microwave remote sensing of hydrological parameters on the NOPEX area. Agricultural and Forest Meteorology, 1999, 98-99, 375-387.	4.8	4
64	Microwave soil moisture monitoring in the toce valley. Physics and Chemistry of the Earth, 2001, 26, 377-381.	0.3	4
65	Sensitivity analysis of microwave backscattering and emission to snow water equivalent: Synergy of dual sensor observations. , 2011, , .		4
66	An empirical approach towards characterization of dry snowlayers using GNSS-R. , 2011, , .		4
67	Properties of the 500-2000-MHz RFI Environment Observed in High-Latitude Airborne Radiometer Measurements. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-11.	6.3	4
68	The Microwave Alpine Snow Melting Experiment (MASMEx 2002): a contribution to the ENVISNOW project. , 0, , .		3
69	An Experimental Campaign in Antarctica for the Calibration of Low-frequency Space-borne Radiometers. , 2006, , .		3
70	A simple technique to improve the AMSR-E spatial resolution at C-band. , 2008, , .		3
71	CoReH<inf>2</inf>O - Cold Regions Hydrology High-resolution Observatory. , 2009, , .		3
72	Monitoring the spatial and temporal homogeneity of microwave emission on the East-Antarctic plateau. , 2010, , .		3

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73	Algorithm for retrieval of snow mass from Ku- and X-band radar backscatter measurements. , 2012, , .		3
74	Characterization of the spatial and temporal stability of the east-antarctic plateau in the low-microwave bands. , 2012, , .		3
75	L-band characterization of Dome-C region using ground and satellites data. , 2013, , .		3
76	Snow layering effects on L-band passive measurements at Dome C - Antarctica. , 2014, , .		3
77	Measurements of 0.5-2 GHz Thermal Emission Spectra from the Greenland Ice Sheet, Sea Ice, and Permafrost: Results from September 2017 Campaign. , 2018, , .		3
78	Implementation and Validation of a Retrieval Algorithm for Profiling of Water Vapor From Differential Attenuation Measurements at Microwaves. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 5939-5948.	6.3	3
79	Integrated Water Vapor Estimation Through Microwave Propagation Measurements: First Experiment on a Ground-to-Ground Radio Link. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-13.	6.3	3
80	Determinación de la humedad de suelo mediante regresión lineal múltiple con datos TerraSAR-X. Revista De Teledeteccion, 2016, , 73.	0.6	3
81	Monitoring Snow Cover Characteristics with Multifrequency Active and Passive Microwave Sensors. , 2006, , .		2
82	Estimating Snow Water Equivalent from Satellite Passive and Active Microwave Sensors. , 2006, , .		2
83	Calibration of a ground based radiometer for a one-year experiment in antarctica : A contribution to SMOS calibration. , 2007, , .		2
84	DOMEX-2 : L-band microwave emission measurements of the Antarctic Plateau. , 2009, , .		2
85	Potentials of X-band active and passive microwave sensors in monitoring vegetation biomass. , 2011, , .		2
86	Investigation on the validity region of analytical models simulating scattering from vegetation elements. , 2012, , .		2
87	COREH2O: High-resolution X/Ku-band radar imaging of cold land processes. , 2013, , .		2
88	Using 0.5-2 ghz Microwave Radiometry to Derive Ocean Salinity. , 2018, , .		2
89	Measuring GNSS ionospheric total electron content at Concordia, and application to L-band radiometers. Annals of Geophysics, 2013, 56, .	1.0	2
90	Preliminary Studies on CIMR Antenna Pattern Brightness Temperature Compensation. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2022, 15, 173-183.	4.9	2

#	ARTICLE	IF	CITATIONS
91	Microwave radiometric measurements of hydrological parameters in mountain areas. , 0, , .		1
92	Large Scale Monitoring of Land Surface with Multitemporal AMSR-E Data and Retrieval of Soil Moisture. , 0, , .		1
93	Temporal and Spatial Variability of Multi-frequency Microwave Emission from the East Antarctic Plateau. , 2006, , .		1
94	Retrieval from AMSR-E data of the snow temperature profile at Dome-C Antarctica Giovanni Macelloni. , 2007, , .		1
95	Design and measurements of a planar microstrip array antenna for L-band remote sensing. , 2007, , .		1
96	Impact of Vegetation in the Retrieval of Snow Parameters from Backscattering Measurements at the X- and Ku-bands. , 2008, , .		1
97	Microwave Emission from Forested Areas by Using Microwave AMSR-E Data. , 2008, , .		1
98	Spatial and Temporal Monitoring of the East-Antarctic Plateau using Passive Microwave Data. , 2008, , .		1
99	Scientific Preparations for CoRe-H ₂ O, a Dual Frequency SAR Mission for Snow and Ice Observations. , 2008, , .		1
100	Snow cover mapping by using optical and SAR data. , 2009, , .		1
101	A pre-operational algorithm for the retrieval of snow depth and soil moisture from AMSR-E data. , 2010, , .		1
102	Evaluation of vegetation effect on the retrieval of snow parameters from backscattering measurements: A contribution to CoReH ₂ O mission. , 2010, , .		1
103	Estimation of air and surface temperature evolution of the East Antarctic Sheet by means of passive microwave remote sensing. , 2011, , .		1
104	Multi-frequency microwave emission of the East Antarctic Plateau. , 2011, , .		1
105	The potential of multi-temporal Cosmo-SkyMed SAR images in monitoring soil and vegetation. , 2011, , .		1
106	Characterization of the spatial and temporal stability of the East Antartctic plateau in the low-microwave bands. , 2012, , .		1
107	Monitoring snow parameters in boreal forest using multi-frequency SAR data. , 2014, , .		1
108	Estimation of vegetation and soil backscattering for the retrieval of SWE in sparse forests. , 2015, , .		1

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109	IEEE NS and HM: Snowmelt in antarctica as derived from SMOS observations. , 2017, , .		1
110	Preliminary study for a spaceborne ultrawideband microwave radiometer for the monitoring of cryosphere elements: The cryorad project. , 2017, , .		1
111	SMOS in Antarctica for the Snowmelt Monitoring. , 2018, , .		1
112	SMOS Instrument Performance after More than 9 Years in Orbit. , 2019, , .		1
113	Assessing Interactions Between Crop Biophysical Parameters and X-Band Backscattering Using Empirical Data and Model Sensitivity Analysis. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-12.	6.3	1
114	Studies of the Retrieval of Sea Ice Thickness and Salinity with Wideband Microwave Radiometry. , 2021, , .		1
115	KydrSAT: a Ku/Ka band synthetic aperture radar space mission concept for high-resolution mapping of hydrometeorological parameters. , 2017, , .		1
116	Estimating the Tropospheric Water Vapor Content Along a Transmitter-Receiver Link: The Swamm Project. , 2018, , .		1
117	P-Band Radiometry: RFI and Calibration for Uwbrad. , 2020, , .		1
118	<title>Monitoring vegetation biomass with microwave sensors</title>. , 1997, , .		0
119	Modeling of stone cover percentage over bare soil using ERS2 radar measurements on semi-arid regions. , 2002, , .		0
120	Monte Carlo: an application to modeling remote sensing of vegetation - coherent and incoherent models. , 2003, 5059, 1.		0
121	Fuzzy nearest mean reclustering of SAR pixel features: assessments on land use classification. , 2003, 4883, 113.		0
122	Bistatic scattering from bare soils: Sensitivity to soil moisture and surface roughness. , 2007, , .		0
123	Monitoring of temporal and spatial variability of the East-Antarctic plateau using passive microwave data. , 2008, , .		0
124	Estimating Snow Characteristics with Multifrequency Microwave Radiometry. , 2008, , .		0
125	Development of a microstrip array antenna for L-band radiometer. , 2008, , .		0
126	DOMEX-2 Thermal Design, Testing and Commissioning in Support to the SMOS Mission. , 2009, , .		0

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127	Foreword to the Special Issue on the 10th Specialist Meeting on Microwave Radiometry and Remote Sensing of the Environment (MicroRad'08). IEEE Transactions on Geoscience and Remote Sensing, 2009, 47, 2991-2994.	6.3	0
128	Two operational algorithms for the retrieval of snow depth and soil moisture content from AMSR-E data. , 2010, , .		0
129	Impact of the Faraday rotation on the SMOS measurements over the dome C test site: A semi-empirical study. , 2010, , .		0
130	CoReH<inf>2</inf>0, a dual frequency radar satellite for COld REgions Hydrology. , 2011, , .		0
131	Electromagnetic simulation and validation of backscattering from boreal forest in the C-Ku frequency range. , 2013, , .		0
132	Ground-based scatterometer observations of snow-covered freshwater lake ice using UW-SCAT (9.6/17.2 GHz). , 2014, , .		0
133	On the estimate of the microwave shadowing effect on sparse boreal forests. , 2015, , .		0
134	Analysis of L-band brightness temperature time series at DOME C — Antarctica. , 2015, , .		0
135	Retrieval of ice sheet temperature profile in antarctica by using smos data: A combination of glaciological and microwave emission models. , 2017, , .		0
136	Future mission concepts for measuring snow mass. , 2017, , .		0
137	A Low Cost Microwave Transmitter-Receiver Link for Measuring the Integrated Water Vapor. , 2018, , .		0
138	Integrated Water Vapor Estimation through Microwave Propagation Measurements: First Experiment on a Ground-To-Ground Radio Link. , 2019, , .		0
139	UHF Propagation Measurements Through the Antarctic Firn at Concordia Station. , 2021, , .		0
140	Atmospheric Emission at Low Microwave Frequencies: A Site-Based Analysis. , 2021, , .		0