

# Giovanni Macelloni

## List of Publications by Year in descending order

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140  
papers

2,369  
citations

236925

25  
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233421

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g-index

148  
all docs

148  
docs citations

148  
times ranked

2337  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	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
3	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
4	Greenland Ice Sheet Subsurface Temperature Estimation Using Ultrawideband Microwave Radiometry. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-12.	6.3	17
5	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
6	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
7	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
8	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
9	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
10	UHF Propagation Measurements Through the Antarctic Firm at Concordia Station. , 2021, , .		0
11	Atmospheric Emission at Low Microwave Frequencies: A Site-Based Analysis. , 2021, , .		0
12	Studies of the Retrieval of Sea Ice Thickness and Salinity with Wideband Microwave Radiometry. , 2021, , .		1
13	Melt in Antarctica derived from Soil Moisture and Ocean Salinity (SMOS) observations at L-Band. Cryosphere, 2020, 14, 539-548.	3.9	16
14	P-Band Radiometry: RFI and Calibration for UWB. , 2020, , .		1
15	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
16	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
17	On the retrieval of internal temperature of Antarctica Ice Sheet by using SMOS observations. Remote Sensing of Environment, 2019, 233, 111405.	11.0	23
18	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

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19	SMOS Instrument Performance after More than 9 Years in Orbit. , 2019, , .		1
20	Integrated Water Vapor Estimation through Microwave Propagation Measurements: First Experiment on a Ground-To-Ground Radio Link. , 2019, , .		0
21	500â€“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
22	Retrieval of the Absorption Coefficient of L-Band Radiation in Antarctica From SMOS Observations. Remote Sensing, 2018, 10, 1954.	4.0	7
23	A Low Cost Microwave Transmitter-Receiver Link for Measuring the Integrated Water Vapor. , 2018, , .		0
24	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
25	Using 0.5-2 ghz Microwave Radiometry to Derive Ocean Salinity. , 2018, , .		2
26	SMOS in Antarctica for the Snowmelt Monitoring. , 2018, , .		1
27	Cryorad: A Low Frequency Wideband Radiometer Mission for the Study of the Cryosphere. , 2018, , .		10
28	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
29	Retrieval of Effective Correlation Length and Snow Water Equivalent from Radar and Passive Microwave Measurements. Remote Sensing, 2018, 10, 170.	4.0	42
30	European In-Situ Snow Measurements: Practices and Purposes. Sensors, 2018, 18, 2016.	3.8	50
31	Estimating the Tropospheric Water Vapor Content Along a Transmitter-Receiver Link: The Swamm Project. , 2018, , .		1
32	Multi-year record of atmospheric and snow surface nitrate in the central Antarctic plateau. Chemosphere, 2017, 172, 341-354.	8.2	12
33	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
34	Retrieval of ice sheet temperature profile in antarctica by using smos data: A combination of glaciological and microwave emission models. , 2017, , .		0
35	IEEE NS and HM: Snowmelt in antarctica as derived from SMOS observations. , 2017, , .		1
36	Preliminary study for a spaceborne ultrawideband microwave radiometer for the monitoring of cryosphere elements: The cryorad project. , 2017, , .		1

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37	The Ultra-Wideband Software Defined Microwave Radiometer (UWBRAD) for Ice sheet subsurface temperature sensing: Calibration and campaign results. , 2017, , .		5
38	Future mission concepts for measuring snow mass. , 2017, , .		0
39	KydroSAT: a Ku/Ka band synthetic aperture radar space mission concept for high-resolution mapping of hydrometeorological parameters. , 2017, , .		1
40	The Ultra-wideband Software-Defined Radiometer (UWBRAD) for ice sheet internal temperature sensing: Results from recent observations. , 2016, , .		11
41	Analyzing and modeling the SMOS spatial variations in the East Antarctic Plateau. Remote Sensing of Environment, 2016, 180, 193-204.	11.0	20
42	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
43	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
44	ESA's Soil Moisture and Ocean Salinity mission: From science to operational applications. Remote Sensing of Environment, 2016, 180, 3-18.	11.0	77
45	Determinaci3n de la humedad de suelo mediante regresi3n lineal m3ltiple con datos TerraSAR-X. Revista De Teledeteccion, 2016, , 73.	0.6	3
46	On the estimate of the microwave shadowing effect on sparse boreal forests. , 2015, , .		0
47	Analysis of L-band brightness temperature time series at DOME C &#x2014; Antarctica. , 2015, , .		0
48	Estimation of vegetation and soil backscattering for the retrieval of SWE in sparse forests. , 2015, , .		1
49	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
50	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
51	Simulating Multifrequency Ground-Based Radiometric Measurements at Dome C&#x2014; Antarctica. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 4405-4417.	4.9	24
52	Radiometric Approach for Estimating Relative Changes in Intraglacier Average Temperature. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 134-143.	6.3	53
53	Ground-based scatterometer observations of snow-covered freshwater lake ice using UW-SCAT (9.6/17.2 GHz). , 2014, , .		0
54	Understanding SMOS data in Antarctica. , 2014, , .		9

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55	Monitoring snow parameters in boreal forest using multi-frequency SAR data. , 2014, , .		1
56	Snow layering effects on L-band passive measurements at Dome C - Antarctica. , 2014, , .		3
57	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
58	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
59	Event-driven deposition of snow on the Antarctic Plateau: analyzing field measurements with SNOWPACK. Cryosphere, 2013, 7, 333-347.	3.9	67
60	COREH2O: High-resolution X/Ku-band radar imaging of cold land processes. , 2013, , .		2
61	Electromagnetic simulation and validation of backscattering from boreal forest in the C-Ku frequency range. , 2013, , .		0
62	L-band characterization of Dome-C region using ground and satellites data. , 2013, , .		3
63	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
64	Measuring GNSS ionospheric total electron content at Concordia, and application to L-band radiometers. Annals of Geophysics, 2013, 56, .	1.0	2
65	Algorithm for retrieval of snow mass from Ku- and X-band radar backscatter measurements. , 2012, , .		3
66	CoReH&lt;inf&gt;2&lt;/inf&gt;O, a dual frequency radar mission for snow and ice observations. , 2012, , .		7
67	Investigation on the validity region of analytical models simulating scattering from vegetation elements. , 2012, , .		2
68	Characterization of the spatial and temporal stability of the East Antartctic plateau in the low-microwave bands. , 2012, , .		1
69	Effect of forests on the retrieval of snow parameters from backscatter measurements. European Journal of Remote Sensing, 2012, 45, 121-132.	3.5	12
70	Characterization of the spatial and temporal stability of the east-antarctic plateau in the low-microwave bands. , 2012, , .		3
71	The retrieval and monitoring of vegetation parameters from COSMO-SkyMed images. , 2012, , .		6
72	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

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73	Potentials of X-band active and passive microwave sensors in monitoring vegetation biomass. , 2011, , .		2
74	Estimation of air and surface temperature evolution of the East Antarctic Sheet by means of passive microwave remote sensing. , 2011, , .		1
75	Sensitivity analysis of microwave backscattering and emission to snow water equivalent: Synergy of dual sensor observations. , 2011, , .		4
76	Multi-frequency microwave emission of the East Antarctic Plateau. , 2011, , .		1
77	An empirical approach towards characterization of dry snowlayers using GNSS-R. , 2011, , .		4
78	The potential of multi-temporal Cosmo-Skymed SAR images in monitoring soil and vegetation. , 2011, , .		1
79	CoReH&lt;inf&gt;2&lt;/inf&gt;0, a dual frequency radar satellite for COLD REgions Hydrology. , 2011, , .		0
80	Cold Regions Hydrology High-Resolution Observatory for Snow and Cold Land Processes. Proceedings of the IEEE, 2010, 98, 752-765.	21.3	148
81	Two operational algorithms for the retrieval of snow depth and soil moisture content from AMSR-E data. , 2010, , .		0
82	A pre-operational algorithm for the retrieval of snow depth and soil moisture from AMSR-E data. , 2010, , .		1
83	Evaluation of vegetation effect on the retrieval of snow parameters from backscattering measurements: A contribution to CoReH2O mission. , 2010, , .		1
84	Monitoring sea-ice and dry snow with GNSS reflections. , 2010, , .		24
85	Monitoring the spatial and temporal homogeneity of microwave emission on the East-Antarctic plateau. , 2010, , .		3
86	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
87	Impact of the Faraday rotation on the SMOS measurements over the dome C test site: A semi-empirical study. , 2010, , .		0
88	Passive Polarimetric Microwave Signatures Observed Over Antarctica. IEEE Transactions on Geoscience and Remote Sensing, 2010, 48, 1059-1075.	6.3	24
89	DOMEX-2 Thermal Design, Testing and Commissioning in Support to the SMOS Mission. , 2009, , .		0
90	CoReH&lt;inf&gt;2&lt;/inf&gt;O - Cold Regions Hydrology High-resolution Observatory. , 2009, , .		3

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91	DOMEX-2 : L-band microwave emission measurements of the Antarctic Plateau. , 2009, , .		2
92	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
93	Monitoring Snow Characteristics With Ground-Based Multifrequency Microwave Radiometry. IEEE Transactions on Geoscience and Remote Sensing, 2009, 47, 3643-3655.	6.3	30
94	Snow cover mapping by using optical and SAR data. , 2009, , .		1
95	Monitoring of temporal and spatial variability of the East-Antarctic plateau using passive microwave data. , 2008, , .		0
96	A simple technique to improve the AMSR-E spatial resolution at C-band. , 2008, , .		3
97	Impact of Vegetation in the Retrieval of Snow Parameters from Backscattering Measurements at the X- and Ku-bands. , 2008, , .		1
98	Estimating Snow Characteristics with Multifrequency Microwave Radiometry. , 2008, , .		0
99	Development of a microstrip array antenna for L-band radiometer. , 2008, , .		0
100	Microwave Emission from Forested Areas by Using Microwave AMSR-E Data. , 2008, , .		1
101	Spatial and Temporal Monitoring of the East-Antarctic Plateau using Passive Microwave Data. , 2008, , .		1
102	Scientific Preparations for CoRe-H <sup>2</sup> O, a Dual Frequency SAR Mission for Snow and Ice Observations. , 2008, , .		1
103	Calibration of a ground based radiometer for a one-year experiment in antarctica : A contribution to SMOS calibration. , 2007, , .		2
104	Retrieval from AMSR-E data of the snow temperature profile at Dome-C Antarctica Giovanni Macelloni. , 2007, , .		1
105	Design and measurements of a planar microstrip array antenna for L-band remote sensing. , 2007, , .		1
106	Bistatic scattering from bare soils: Sensitivity to soil moisture and surface roughness. , 2007, , .		0
107	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
108	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

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109	Monitoring Snow Cover Characteristics with Multifrequency Active and Passive Microwave Sensors. , 2006, , .		2
110	An Experimental Campaign in Antarctica for the Calibration of Low-frequency Space-borne Radiometers. , 2006, , .		3
111	Estimating Snow Water Equivalent from Satellite Passive and Active Microwave Sensors. , 2006, , .		2
112	Temporal and Spatial Variability of Multi-frequency Microwave Emission from the East Antarctic Plateau. , 2006, , .		1
113	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
114	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
115	Study of the snow melt-freeze cycle using multi-sensor data and snow modeling. Journal of Glaciology, 2004, 50, 419-426.	2.2	25
116	The Contribution of Multitemporal SAR Data in Assessing Hydrological Parameters. IEEE Geoscience and Remote Sensing Letters, 2004, 1, 201-205.	3.1	23
117	Monte Carlo: an application to modeling remote sensing of vegetation - coherent and incoherent models. , 2003, 5059, 1.		0
118	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
119	Fuzzy nearest mean reclustering of SAR pixel features: assessments on land use classification. , 2003, 4883, 113.		0
120	Modeling of stone cover percentage over bare soil using ERS2 radar measurements on semi-arid regions. , 2002, , .		0
121	Active and passive microwave measurements for the characterization of soils and crops. Agronomy for Sustainable Development, 2002, 22, 581-586.	0.8	13
122	Modelling radar backscatter from crops during the growth cycle. Agronomy for Sustainable Development, 2002, 22, 575-579.	0.8	13
123	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
124	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
125	Airborne multifrequency L- to Ka-band radiometric measurements over forests. IEEE Transactions on Geoscience and Remote Sensing, 2001, 39, 2507-2513.	6.3	49
126	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



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127	Microwave soil moisture monitoring in the toce valley. Physics and Chemistry of the Earth, 2001, 26, 377-381.	0.3	4
128	Experimental validation of surface scattering and emission models. IEEE Transactions on Geoscience and Remote Sensing, 2000, 38, 459-469.	6.3	60
129	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
130	Microwave remote sensing of hydrological parameters on the NOPEX area. Agricultural and Forest Meteorology, 1999, 98-99, 375-387.	4.8	4
131	The SIR-C/X-SAR experiment on Montespertoli: Sensitivity to hydrological parameters. International Journal of Remote Sensing, 1999, 20, 2597-2612.	2.9	45
132	Microwave emission features of crops with vertical stems. IEEE Transactions on Geoscience and Remote Sensing, 1998, 36, 332-337.	6.3	4
133	<title>Monitoring vegetation biomass with microwave sensors</title>., 1997,, .		0
134	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
135	Microwave radiometric measurements of hydrological parameters in mountain areas. , 0, , .		1
136	The Microwave Alpine Snow Melting Experiment (MASMEx 2002): a contribution to the ENVISNOW project. , 0, , .		3
137	DOMEX 2004: an experimental campaign at dome-C Antarctica for the calibration of space-borne low-frequency microwave radiometers. , 0, , .		8
138	Multitemporal analysis of AMSR-E data: a large scale monitoring of Earth's surface parameters. , 0, , .		5
139	Large Scale Monitoring of Land Surface with Multitemporal AMSR-E Data and Retrieval of Soil Moisture. , 0, , .		1
140	Analysis of ice-sheet temperature profiles from low-frequency airborne remote sensing. Journal of Glaciology, 0, , 1-11.	2.2	6