

Fabio Rocca

List of Publications by Year in descending order

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127
papers

14,910
citations

57758

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58581

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129
all docs

129
docs citations

129
times ranked

6683
citing authors

#	ARTICLE	IF	CITATIONS
1	Compact and Free-Floating Satellite MIMO SAR Formations. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-12.	6.3	11
2	Comments on "Influence of the Statistical Properties of Phase and Intensity on Closure Phase". IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 6277-6278.	6.3	2
3	Three- and Four-Dimensional Topographic Measurement and Validation. Remote Sensing, 2021, 13, 2861.	4.0	0
4	A Mimo Multi-Static SAR Satellite Formation for High Resolution 3D Imaging at Longer Wavelengths. , 2021, , .		1
5	Radar Interferometry: 20 Years of Development in Time Series Techniques and Future Perspectives. Remote Sensing, 2020, 12, 1364.	4.0	57
6	Reproducibility and Replicability in SAR Remote Sensing. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2020, 13, 3834-3843.	4.9	12
7	Paradigm Changes in Surface-Motion Estimation From SAR: Lessons From 16 Years of Sino-European Cooperation in the Dragon Program. IEEE Geoscience and Remote Sensing Magazine, 2020, 8, 8-21.	9.6	11
8	Along-Track Multistatic Synthetic Aperture Radar Formations of Minisatellites. Remote Sensing, 2020, 12, 124.	4.0	25
9	An Iso-Frequency MIMO SAR Formation for Wide-Swath Imaging, Interferometry and Tomography. , 2020, , .		1
10	The ASI Integrated Sounder-SAR System Operating in the UHF-VHF Bands: First Results of the 2018 Helicopter-Borne Morocco Desert Campaign. Remote Sensing, 2019, 11, 1845.	4.0	14
11	The European Space Agency BIOMASS mission: Measuring forest above-ground biomass from space. Remote Sensing of Environment, 2019, 227, 44-60.	11.0	172
12	ARGOS: A fractioned geosynchronous SAR. Acta Astronautica, 2019, 164, 444-457.	3.2	12
13	Performance and Requirements of GEO SAR Systems in the Presence of Radio Frequency Interferences. Remote Sensing, 2018, 10, 82.	4.0	29
14	Options for continuous radar Earth observations. Science China Information Sciences, 2017, 60, 1.	4.3	34
15	Multistatic wavenumber tessellation: Ideas for high resolution P-band SAR missions. , 2017, , .		5
16	Point-target free phase calibration of InSAR data stacks. , 2016, , .		0
17	SAR tomography of natural environments: Signal processing, applications, and future challenges. , 2016, , .		6
18	SAR tomography for the retrieval of forest biomass and height: Cross-validation at two tropical forest sites in French Guiana. Remote Sensing of Environment, 2016, 175, 138-147.	11.0	118

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19	Phase Calibration of Airborne Tomographic SAR Data via Phase Center Double Localization. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 1775-1792.	6.3	82
20	Airborne and satellite SAR tomography: a tool to investigate forests and glaciers structures. Annals of GIS, 2016, 22, 103-112.	3.1	3
21	Assessment of the P- and L-band SAR tomography for the characterization of tropical forests. , 2015, , .		1
22	Temporal Decorrelation impacts on repeat pass tomography in a tropical forest. , 2015, , .		0
23	A processing driven approach to airborne multi-baseline SAR tomography. , 2015, , .		1
24	3D imaging of an alpine glacier: Signal processing of data from the AlpTomoSAR campaign. , 2015, , .		0
25	Advanced Radar Geosynchronous Observation System: ARGOS. IEEE Geoscience and Remote Sensing Letters, 2015, 12, 1406-1410.	3.1	64
26	InSAR Water Vapor Data Assimilation into Mesoscale Model MM5: Technique and Pilot Study. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 3859-3875.	4.9	46
27	The Impact of Temporal Decorrelation on BIOMASS Tomography of Tropical Forests. IEEE Geoscience and Remote Sensing Letters, 2015, 12, 1297-1301.	3.1	28
28	Capabilities of BIOMASS Tomography for Investigating Tropical Forests. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 965-975.	6.3	57
29	Biomass tomography: A new opportunity to observe the earth forests. , 2014, , .		2
30	Ice penetration depth estimation from super-resolution SAR tomography. , 2014, , .		2
31	Relating P-Band Synthetic Aperture Radar Tomography to Tropical Forest Biomass. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 967-979.	6.3	154
32	Nearly Zero Inclination Geosynchronous SAR Mission Analysis With Long Integration Time for Earth Observation. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 6379-6391.	6.3	71
33	Vertical Structure of P-Band Temporal Decorrelation at the Paracou Forest: Results From TropiScat. IEEE Geoscience and Remote Sensing Letters, 2014, 11, 1438-1442.	3.1	31
34	Geosynchronous SAR Focusing With Atmospheric Phase Screen Retrieval and Compensation. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 4397-4404.	6.3	81
35	Phenomenology of Ground Scattering in a Tropical Forest Through Polarimetric Synthetic Aperture Radar Tomography. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 4430-4437.	6.3	39
36	Ground-Based Array for Tomographic Imaging of the Tropical Forest in P-Band. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 4460-4472.	6.3	32

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37	Tomographic SAR analysis of subsurface ice structure in Greenland: First results. , 2013, , .		5
38	The science and measurement concepts underlying the BIOMASS mission. , 2012, , .		5
39	Impact of atmospheric propagation in a Ka-band space-borne SAR for imaging and interferometry. , 2012, , .		1
40	Results on spatial-temporal atmospheric phase screen retrieval from long-term GEOSAR acquisition. , 2012, , .		8
41	Phenomenology of ground scattering in tropical forests through polarimetric SAR tomography. , 2012, , .		0
42	The BIOMASS mission retrieval algorithms: Results from recent campaigns. , 2012, , .		3
43	Perspectives of Sentinel - 1 for InSAR applications. , 2012, , .		3
44	GEMINI: Geosynchronous SAR for Earth Monitoring by Interferometry and Imaging. , 2012, , .		17
45	DEM reconstruction with SqueeSAR. , 2012, , .		2
46	Sentinel 1 SAR interferometry applications: The outlook for sub millimeter measurements. Remote Sensing of Environment, 2012, 120, 156-163.	11.0	150
47	EnVision: taking the pulse of our twin planet. Experimental Astronomy, 2012, 33, 337-363.	3.7	23
48	Multibaseline Polarimetric SAR Tomography of a Boreal Forest at P- and L-Bands. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 232-246.	6.3	207
49	ALGAE: A Fast Algebraic Estimation of Interferogram Phase Offsets in Space-Varying Geometries. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 2343-2353.	6.3	35
50	The BIOMASS mission: Mapping global forest biomass to better understand the terrestrial carbon cycle. Remote Sensing of Environment, 2011, 115, 2850-2860.	11.0	582
51	Numerical weather prediction models and SAR interferometry: synergic use for meteorological and INSAR applications. , 2011, , .		0
52	A New Algorithm for Processing Interferometric Data-Stacks: SqueeSAR. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 3460-3470.	6.3	1,284
53	Three Gorges Dam stability monitoring with time-series InSAR image analysis. Science China Earth Sciences, 2011, 54, 720-732.	5.2	70
54	Mitigation of atmospheric delay in InSAR: The ESA Metawave project. , 2011, , .		10

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55	A Ku-band geosynchronous Synthetic Aperture Radar mission analysis with medium transmitted power and medium-sized antenna. , 2011, , .		6
56	P band penetration in tropical and boreal forests: Tomographical results. , 2011, , .		13
57	Coherence linearity and SKP-structured matrices in multi-baseline PolInSAR. , 2011, , .		0
58	Flexible Dynamic Block Adaptive Quantization for Sentinel-1 SAR Missions. IEEE Geoscience and Remote Sensing Letters, 2010, 7, 766-770.	3.1	37
59	SKP-shrinkage estimator for SAR multi-baselines applications. , 2010, , .		3
60	ALGAE: A fast algebraic estimation of interferogram phase offsets in space varying geometries. , 2010, , .		0
61	Polarimetric and structural properties of forest scenarios as imaged by longer wavelength SRS. , 2010, , .		4
62	SAR imaging of forest structure at longer wavelengths. , 2010, , .		3
63	Forest structure from longer wavelength SRS. , 2010, , .		7
64	Space-borne SRS: impact of wavelengths and scan modes on ground motion studies. Annals of GIS, 2010, 16, 69-79.	3.1	1
65	Mitigation of Atmospheric Water-vapour Effects on Spaceborne Interferometric SAR Imaging through the MM5 Numerical Model. Progress in Electromagnetics Research Symposium: [proceedings] Progress in Electromagnetics Research Symposium, 2010, 6, 262-266.	0.4	3
66	On the impact of propagation disturbances on SAR Tomography: Analysis and compensation. , 2009, , .		18
67	PSInSAR Analysis over the Three Gorges Dam and urban areas in China. , 2009, , .		6
68	Impact of atmospheric water vapor on the design of a Ku band geosynchronous SAR system. , 2009, , .		17
69	FDBAQ a novel encoding scheme for Sentinel-1. , 2009, , .		9
70	GMES Sentinel-1 FDBAQ performance analysis. , 2009, , .		8
71	Sentinel 1: Interferometric applications. , 2009, , .		3
72	18 Years of interferometry, as seen from POLIMI. , 2009, , .		0

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73	Deformation Monitoring by Long Term D-InSAR Analysis in Three Gorges Area, China. , 2008, , .		6
74	LS&EIP: An adaptive dip&Ebased subtraction of predicted multiples. , 2008, , .		1
75	ASAR parallel-track PS analysis in urban sites. , 2007, , .		2
76	3-D tsunami coastal hazard mapping in Sri Lanka by very-high resolution, airborne and spaceborne remote-sensing. , 2007, , .		0
77	Submillimeter Accuracy of InSAR Time Series: Experimental Validation. IEEE Transactions on Geoscience and Remote Sensing, 2007, 45, 1142-1153.	6.3	340
78	Burst-mode SARs for wide-swath surveys. Canadian Journal of Remote Sensing, 2007, 33, 27-38.	2.4	26
79	A Combination of Space and Terrestrial Geodetic Techniques to Monitor Land Subsidence: Case Study, the Southeastern Po Plain, Italy. Journal of Geophysical Research, 2007, 112, .	3.3	51
80	Modeling Interferogram Stacks. IEEE Transactions on Geoscience and Remote Sensing, 2007, 45, 3289-3299.	6.3	157
81	High-Accuracy Urban DEM Using Permanent Scatterers. IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 3338-3347.	6.3	75
82	Subsidence and flooding in New Orleans. Nature, 2006, 441, 587-588.	27.8	315
83	Higher-Order Permanent Scatterers Analysis. Eurasip Journal on Advances in Signal Processing, 2005, 2005, 1.	1.7	56
84	Three-dimensional seismic-while-drilling (SWD) migration in the angular frequency domain. Geophysics, 2005, 70, S111-S120.	2.6	3
85	Dynamics of Slow-Moving Landslides from Permanent Scatterer Analysis. Science, 2004, 304, 1952-1955.	12.6	409
86	Diameters of the Orbital Tubes in Long-Term Interferometric SAR Surveys. IEEE Geoscience and Remote Sensing Letters, 2004, 1, 224-227.	3.1	19
87	Focusing bistatic synthetic aperture radar using dip move out. IEEE Transactions on Geoscience and Remote Sensing, 2004, 42, 1362-1376.	6.3	129
88	Monitoring landslides and tectonic motions with the Permanent Scatterers Technique. Engineering Geology, 2003, 68, 3-14.	6.3	399
89	Sar monitoring of progressive and seasonal ground deformation using the permanent scatterers technique. IEEE Transactions on Geoscience and Remote Sensing, 2003, 41, 1685-1701.	6.3	350
90	Permanent scatterers in SAR interferometry. IEEE Transactions on Geoscience and Remote Sensing, 2001, 39, 8-20.	6.3	3,804

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91	Calibration of atmospheric effects on SAR interferograms by GPS and local atmosphere models: first results. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2001, 63, 1343-1357.	1.6	38
92	Cross-spread imaging by 3D diffraction tomography. , 2001, , .		0
93	Sar Interferometry And Its Applications. <i>Surveys in Geophysics</i> , 2000, 21, 159-176.	4.6	30
94	A ground-based parasitic SAR experiment. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2000, 38, 2132-2141.	6.3	75
95	Nonlinear subsidence rate estimation using permanent scatterers in differential SAR interferometry. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2000, 38, 2202-2212.	6.3	1,821
96	Aliasing and irregular sampling for Kirchhoff integral operators. , 2000, , .		0
97	Radar tomography for NDT: comparison of techniques. <i>Journal of Applied Geophysics</i> , 1999, 41, 259-269.	2.1	43
98	Combination of low- and high-resolution SAR images for differential interferometry. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 1999, 37, 2035-2049.	6.3	24
99	Multibaseline InSAR DEM reconstruction: the wavelet approach. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 1999, 37, 705-715.	6.3	186
100	Passive geosynchronous SAR system reusing backscattered digital audio broadcasting signals. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 1998, 36, 1973-1976.	6.3	110
101	The wavenumber shift in SAR interferometry. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 1994, 32, 855-865.	6.3	535
102	Improving slant-range resolution with multiple SAR surveys. <i>IEEE Transactions on Aerospace and Electronic Systems</i> , 1993, 29, 135-143.	4.7	90
103	Eigenvalues and eigenvectors of linearized elastic inversion. <i>Geophysics</i> , 1993, 58, 670-679.	2.6	70
104	Focusing SAR data with time-varying Doppler centroid. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 1992, 30, 550-559.	6.3	35
105	Blind deconvolution for Doppler centroid estimation in high frequency SAR. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 1991, 29, 934-941.	6.3	11
106	SAR data focusing using seismic migration techniques. <i>IEEE Transactions on Aerospace and Electronic Systems</i> , 1991, 27, 194-207.	4.7	562
107	Asymptotically efficient blind deconvolution. <i>Signal Processing</i> , 1990, 20, 193-209.	3.7	29
108	Seismic Migration For Sar Focusing: Interferometrical Applications. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 1990, 28, 627-640.	6.3	97

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109	Motion compensated image interpolation. IEEE Transactions on Communications, 1990, 38, 215-222.	7.8	74
110	Synthetic aperture radar focusing with polyphase filters. Signal Processing, 1989, 18, 397-411.	3.7	4
111	SYNTHETIC APERTURE RADAR:A NEW APPLICATION FOR WAVE EQUATION TECHNIQUES1. Geophysical Prospecting, 1989, 37, 809-830.	1.9	60
112	Algorithms for image reconstruction after nonuniform sampling. IEEE Transactions on Acoustics, Speech, and Signal Processing, 1987, 35, 1185-1189.	2.0	6
113	Residual migration: Applications and limitations. Geophysics, 1985, 50, 110-126.	2.6	75
114	Signal/noise separation and velocity estimation. Geophysics, 1984, 49, 1869-1880.	2.6	179
115	OFFSET CONTINUATION IN THEORY AND PRACTICE*. Geophysical Prospecting, 1984, 32, 1045-1073.	1.9	12
116	OFFSET CONTINUATION OF SEISMIC SECTIONS*. Geophysical Prospecting, 1982, 30, 813-828.	1.9	70
117	ZERO MEMORY NON-LINEAR DECONVOLUTION*. Geophysical Prospecting, 1981, 29, 189-228.	1.9	92
118	GEOMETRICAL OPTICS AND WAVE THEORY OF CONSTANT OFFSET SECTIONS IN LAYERED MEDIA*. Geophysical Prospecting, 1981, 29, 374-406.	1.9	122
119	Modeling seismic impedance with Markov chains. Geophysics, 1980, 45, 1351-1372.	2.6	55
120	Design of a computerized emission tomographic system. Signal Processing, 1979, 1, 125-131.	3.7	7
121	Tracking moving objects in television images. Signal Processing, 1979, 1, 133-140.	3.7	61
122	Compensation of tissue absorption in emission tomography. IEEE Transactions on Acoustics, Speech, and Signal Processing, 1979, 27, 213-218.	2.0	197
123	A FREQUENCY DOMAIN APPROACH TO TWO-DIMENSIONAL MIGRATION *. Geophysical Prospecting, 1978, 26, 750-772.	1.9	15
124	METHODS FOR CONTOURING IRREGULARLY SPACED DATA*. Geophysical Prospecting, 1977, 25, 96-119.	1.9	5
125	Methods for measuring small displacements of television images. IEEE Transactions on Information Theory, 1976, 22, 573-579.	2.4	200
126	INTERPRETATION OF MAGNETIC ANOMALIES USING SPECTRAL ESTIMATION TECHNIQUES*. Geophysical Prospecting, 1975, 23, 663-681.	1.9	21

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127	AFTER-STACK MULTICHANNEL FILTERS WITHOUT MIXING EFFECTS *. Geophysical Prospecting, 1974, 22, 330-344.	1.9	10