Andrea Monti-Guarnieri

List of Publications by Year
in descending order

143	3,799	186265 28	138484 58
papers	citations	h-index	g-index

146	146	146	2233
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	TOPSAR: Terrain Observation by Progressive Scans. IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 2352-2360.	6.3	579
2	The wavenumber shift in SAR interferometry. IEEE Transactions on Geoscience and Remote Sensing, 1994, 32, 855-865.	6.3	535
3	On the Exploitation of Target Statistics for SAR Interferometry Applications. IEEE Transactions on Geoscience and Remote Sensing, 2008, 46, 3436-3443.	6.3	226
4	Sentinel 1 SAR interferometry applications: The outlook for sub millimeter measurements. Remote Sensing of Environment, 2012, 120, 156-163.	11.0	150
5	Focusing bistatic synthetic aperture radar using dip move out. IEEE Transactions on Geoscience and Remote Sensing, 2004, 42, 1362-1376.	6.3	129
6	Passive geosynchronous SAR system reusing backscattered digital audio broadcasting signals. IEEE Transactions on Geoscience and Remote Sensing, 1998, 36, 1973-1976.	6.3	110
7	ScanSAR focusing and interferometry. IEEE Transactions on Geoscience and Remote Sensing, 1996, 34, 1029-1038.	6.3	101
8	Seismic Migration For Sar Focusing: Interferometrical Applications. IEEE Transactions on Geoscience and Remote Sensing, 1990, 28, 627-640.	6.3	97
9	Adaptive removal of azimuth ambiguities in SAR images. IEEE Transactions on Geoscience and Remote Sensing, 2005, 43, 625-633.	6.3	95
10	Distributed Scatterer Interferometry With the Refinement of Spatiotemporal Coherence. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 3977-3987.	6.3	93
11	Atmospheric Phase Screen in Ground-Based Radar: Statistics and Compensation. IEEE Geoscience and Remote Sensing Letters, 2011, 8, 537-541.	3.1	86
12	Geosynchronous SAR Focusing With Atmospheric Phase Screen Retrieval and Compensation. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 4397-4404.	6.3	81
13	Maximum likelihood multi-baseline SAR interferometry. IET Radar, Sonar & Navigation, 2006, 153, 279.	2.1	79
14	Hybrid CramÃ‰râ€“Rao Bounds for Crustal Displacement Field Estimators in SAR Interferometry. IEEE Signal Processing Letters, 2007, 14, 1012-1015.	3.6	72
15	SAR interferometry: a "Quick and dirty" coherence estimator for data browsing. IEEE Transactions on Geoscience and Remote Sensing, 1997, 35, 660-669.	6.3	71
16	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
17	Advanced Radar Geosynchronous Observation System: ARGOS. IEEE Geoscience and Remote Sensing Letters, 2015, 12, 1406-1410.	3.1	64
18	High-Resolution Spaceborne SAR Focusing by SVD-Stolt. IEEE Geoscience and Remote Sensing Letters, 2007, 4, 639-643.	3.1	47

#	Article	IF	Citations
19	On the Role of Phase Stability in SAR Multibaseline Applications. IEEE Transactions on Geoscience and Remote Sensing, 2010, 48, 2953-2966.	6.3	46
20	SAR Calibration Aided by Permanent Scatterers. IEEE Transactions on Geoscience and Remote Sensing, 2010, 48, 2076-2086.	6.3	40
21	Flexible Dynamic Block Adaptive Quantization for Sentinel-1 SAR Missions. IEEE Geoscience and Remote Sensing Letters, 2010, 7, 766-770.	3.1	37
22	Minimum mean square error space-varying filtering of interferometric SAR data. IEEE Transactions on Geoscience and Remote Sensing, 2002, 40, 11-21.	6.3	35
23	A Synergistic Use of a High-Resolution Numerical Weather Prediction Model and High-Resolution Earth Observation Products to Improve Precipitation Forecast. Remote Sensing, 2019, 11, 2387.	4.0	35
24	Options for continuous radar Earth observations. Science China Information Sciences, 2017, 60, 1.	4.3	34
25	Atmospheric Phase Screen in GEO-SAR: Estimation and Compensation. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 1668-1679.	6.3	33
26	Sar Interferometry And Its Applications. Surveys in Geophysics, 2000, 21, 159-176.	4.6	30
27	Coherent Change Detection for Multipass SAR. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 6811-6822.	6.3	30
28	Reduction to monostatic focusing of bistatic or motion uncompensated SAR surveys. IET Radar, Sonar & Navigation, 2006, 153, 199.	2.1	29
29	Identification of C-Band Radio Frequency Interferences from Sentinel-1 Data. Remote Sensing, 2017, 9, 1183.	4.0	29
30	Performance and Requirements of GEO SAR Systems in the Presence of Radio Frequency Interferences. Remote Sensing, 2018, 10, 82.	4.0	29
31	Navigation-Aided Automotive SAR for High-Resolution Imaging of Driving Environments. IEEE Access, 2021, 9, 35599-35615.	4.2	29
32	Burst-mode SARs for wide-swath surveys. Canadian Journal of Remote Sensing, 2007, 33, 27-38.	2.4	26
33	Calibration of SAR Polarimetric Images by Means of a Covariance Matching Approach. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 674-686.	6.3	26
34	Along-Track Multistatic Synthetic Aperture Radar Formations of Minisatellites. Remote Sensing, 2020, 12, 124.	4.0	25
35	Combination of low- and high-resolution SAR images for differential interferometry. IEEE Transactions on Geoscience and Remote Sensing, 1999, 37, 2035-2049.	6.3	24
36	Impact of Scene Decorrelation on Geosynchronous SAR Data Focusing. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 1635-1646.	6.3	21

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37	Sentinel-1 Sensitivity to Soil Moisture at High Incidence Angle and the Impact on Retrieval Over Seasonal Crops. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 7308-7321.	6.3	21
38	Multi-mode ENVISAT ASAR interferometry: techniques and preliminary results. IET Radar, Sonar & Navigation, 2003, 150, 193.	2.1	19
39	Joint exploitation of spaceborne SAR images and GIS techniques for urban coherent change detection. Remote Sensing of Environment, 2021, 253, 112152.	11.0	19
40	On the Phase Calibration by Multisquint Analysis in TOPSAR and Stripmap Interferometry. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 134-147.	6.3	18
41	3D Vibration Estimation from Ground-Based Radar. Remote Sensing, 2018, 10, 1670.	4.0	18
42	Impact of atmospheric water vapor on the design of a Ku band geosynchronous SAR system. , 2009, , .		17
43	GEMINI: Geosynchronous SAR for Earth Monitoring by Interferometry and Imaging. , 2012, , .		17
44	Vegetated Target Decorrelation in SAR and Interferometry: Models, Simulation, and Performance Evaluation. Remote Sensing, 2020, 12, 2545.	4.0	17
45	Efficient Wavenumber Domain Focusing for Ground-Based SAR. IEEE Geoscience and Remote Sensing Letters, 2010, 7, 161-165.	3.1	16
46	Optimal "focusing" for low resolution ScanSAR. IEEE Transactions on Geoscience and Remote Sensing, 2001, 39, 479-491.	6.3	15
47	Doppler Centroid Estimation for ScanSAR Data. IEEE Transactions on Geoscience and Remote Sensing, 2004, 42, 14-23.	6.3	15
48	Joint Multi-baseline SAR Interferometry. Eurasip Journal on Advances in Signal Processing, 2005, 2005, 1.	1.7	15
49	Stable Target Detection and Coherence Estimation in Interferometric SAR Stacks. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 3171-3178.	6.3	13
50	GeoSTARe initial mission design. , 2014, , .		13
51	Excess Path Delays From Sentinel Interferometry to Improve Weather Forecasts. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2020, 13, 3213-3228.	4.9	13
52	SAR interferometry and statistical topography. IEEE Transactions on Geoscience and Remote Sensing, 2002, 40, 2567-2581.	6.3	12
53	Model Based SAR Tomography of Forested Areas. , 2008, , .		12
54	Sentinel-1A: Analysis of FDBAQ Performance on Real Data. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 6804-6812.	6.3	12

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55	ARGOS: A fractioned geosynchronous SAR. Acta Astronautica, 2019, 164, 444-457.	3.2	12
56	Joint Exploitation of SAR and GNSS for Atmospheric Phase Screens Retrieval Aimed at Numerical Weather Prediction Model Ingestion. Remote Sensing, 2020, 12, 654.	4.0	12
57	Compact and Free-Floating Satellite MIMO SAR Formations. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-12.	6.3	11
58	A wide swath, full polarimetric, L band spaceborne SAR. , 2008, , .		10
59	LEO to GEO-SAR Interferences: Modelling and Performance Evaluation. Remote Sensing, 2019, 11, 1720.	4.0	10
60	FDBAQ a novel encoding scheme for Sentinel-1. , 2009, , .		9
61	Fast Urban Land Cover Mapping Exploiting Sentinel-1 and Sentinel-2 Data. Remote Sensing, 2022, 14, 36.	4.0	9
62	Multi-Beam Automotive SAR Imaging in Urban Scenarios. , 2022, , .		9
63	GMES Sentinel-1 FDBAQ performance analysis. , 2009, , .		8
64	Results on spatial-temporal atmospheric phase screen retrieval from long-term GEOSAR acquisition. , 2012, , .		8
65	Assesment of atmospheric phase screen impact on Geosynchronous SAR. , 2014, , .		8
66	Azimuth Antenna Maximum Likelihood Estimation by Persistent Point Scatterers in SAR Images. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 947-955.	6.3	8
67	Gâ€CLASS: geosynchronous radar for water cycle science â€“ orbit selection and system design. Journal of Engineering, 2019, 2019, 7534-7537.	1.1	8
68	ML-Based Fringe-Frequency Estimation for InSAR. IEEE Geoscience and Remote Sensing Letters, 2010, 7, 136-140.	3.1	7
69	A Space Adaptive Quantizer for Spaceborne SAR. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 3564-3573.	6.3	7
70	Geosynchronous Continental Land-Atmosphere Sensing System (G-Class): Persistent Radar Imaging for Earth Science. , 2018, , .		7
71	Multitemporal InSAR Coherence Analysis and Methods for Sand Mitigation. Remote Sensing, 2021, 13, 1362.	4.0	7
72	COHERENT CHANGE DETECTION FOR REPEATED-PASS INTERFEROMETRIC SAR IMAGES: AN APPLICATION TO EARTHQUAKE DAMAGE ASSESSMENT ON BUILDINGS. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLII-3/W4, 383-388.	0.2	7

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73	Using topography statistics to help phase unwrapping. IET Radar, Sonar & Navigation, 2003, 150, 144.	2.1	6
74	A Ku-band geosynchronous Synthetic Aperture Radar mission analysis with medium transmitted power and medium-sized antenna. , 2011, , .		6
75	Meteorological OSSEs for New Zenith Total Delay Observations: Impact Assessment for the Hydroterra Geosynchronous Satellite on the October 2019 Genoa Event. Remote Sensing, 2020, 12, 3787.	4.0	6
76	A Quick and Dirty processor for automotive forward SAR imaging. , 2022, , .		6
77	Optimal block quantization for SAR data. , 2010, , .		5
78	Generation and Calibration of High-Resolution DEM From Single-Baseline Spaceborne Interferometry: The â€œSplit-Swathâ€•Approach. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 4858-4867.	6.3	5
79	Polarimetric and structural properties of forest scenarios as imaged by longer wavelength SARS. , 2010, , .		4
80	Impact of the antenna stability on the Doppler Centroid frequency. , 2011, , .		4
81	An efficient method for the azimuth compression of geosynchronous SAR data through sub-apertures processing. , 2013, , .		4
82	Long-Term Relative Radiometric Calibration and Antenna Pointing Estimation by Natural Targets. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 4388-4396.	6.3	4
83	POST-DISASTER DAMAGE ASSESSMENT THROUGH COHERENT CHANGE DETECTION ON SAR IMAGERY. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLII-3, 431-436.	0.2	4
84	Automatic quality assessment for interferogram SAR stacks. , 2011, , .		3
85	Internal clutter motion impact on the long integration GEOSAR acquisition. , 2014, , .		3
86	Requirements and Tests for Phase Preservation in a SAR Processor. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 2788-2798.	6.3	3
87	Demonstrative geosynchronous SAR products affected by clutter and APS decorrelation. , 2015, , .		3
88	Geostare system performance assessment methodology. , 2016, , .		3
89	SAR Focusing In Non-standard Geometries: A Generalized Approach. , 0, , .		2
90	Residual SAR focusing: an application to coherence improvement. IEEE Transactions on Geoscience and Remote Sensing, 1996, 34, 201-211.	6.3	2

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91	An interferometric quick-look processor. IEEE Transactions on Geoscience and Remote Sensing, 1999, 37, 861-866.	6.3	2
92	Advances in SAR interferometry for sentinel-1 with TOPS. , 2008, , .		2
93	Analysis of antenna pointing errors on SAR image quality. , 2008, , .		2
94	Performances and limitations of Persistent Scatterers-based SAR calibration. , 2010, , .		2
95	Accurate optimal doppler centroid estimation for SAR data. , 2011, , .		2
96	Phase requirements, design and validation of phase preserving processors for a SAR system. , 2011, , .		2
97	Calibration of polarimetric SAR images affected by Faraday rotation through the PS technique. , 2011, , .		2
98	Long term relative polarimetric calibration by natural targets. , 2013, , .		2
99	A geostationary MIMO SAR swarm for quasi-continuous observation. , 2015, , .		2
100	Advanced three dimensional monitoring of structural vibrations and displacements by remote radar sensing. , 2015, , .		2
101	Enhanced processing of Sentinel-1 TOPSAR data. , 2016, , .		2
102	Sentinel-1 Sensitivity to Soil Moisture at High Incidence Angle and its Impact on Retrieval. , 2018, , .		2
103	SAR-BASED COASTLINE DETECTION AND MONITORING. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLIII-B3-2021, 327-334.	0.2	2
104	Coherent techniques for multi channel SAR interferometry. , 0, , .		1
105	A new framework for multi-pass SAR interferometry with distributed targets. , 2007, , .		1
106	Roll-steering for improving SAOCOM-SAR performances. , 2010, , .		1
107	Impact of atmospheric propagation in a Ka-band space-borne SAR for imaging and interferometry. , 2012, , .		1
108	A PS-based approach for the calilbration of spaceborne polarimetric SAR systems. , 2012, , .		1

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109	Accurate Monitoring of Pipe and Structural Vibrations by Remote RADAR Observations. , 2013, , .		1
110	A comparative study of RADAR Ka-band backscatter. Proceedings of SPIE, 2014, , .	0.8	1
111	Orbit accuracy estimation by multi-squint phase: First Sentinel-1 results. , 2015, , .		1
112	Informing water management by direct use of SAR retrieved snow information in snow-rainfall dominated watersheds. , 2015, , .		1
113	Decorrelating targets: Models and measures. , 2016, , .		1
114	Pre-Flight SAOCOM-1A SAR Performance Assessment by Outdoor Campaign. Remote Sensing, 2017, 9, 729.	4.0	1
115	End-to-End Simulator of Geosynchronous SAR Data for System Performance Assessment. , 2018, , .		1
116	HIGH-RESOLUTION URBAN MAPPING BY FUSION OF SAR AND OPTICAL DATA. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLIII-B3-2021, 273-278.	0.2	1
117	A NOVEL PROCEDURE FOR GENERATION OF SAR-DERIVED ZTD MAPS FOR WEATHER PREDICTION: APPLICATION TO SOUTH AFRICA USE CASE. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLIII-B3-2021, 405-410.	0.2	1
118	Formation of MIMO SAR Mini-Satellites: Performance Prediction. , 2021, , .		1
119	HIGH-RESOLUTION SAR COHERENT CHANGE DETECTION IN URBAN ENVIRONMENT. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLIII-B3-2020, 1569-1575.	0.2	1
120	An Iso-Frequency MIMO SAR Formation for Wide-Swath Imaging, Interferometry and Tomography. , 2020, , .		1
121	Autofocusing SAR Data Using The Blind Deconvolution Approach: Limits And Experimental Results.. , 0, , .		0
122	Cover. ERS-1 SAR interferogram of Mount Vesuvio (Italy). International Journal of Remote Sensing, 1996, 17, 2477-2478.	2.9	0
123	ASAR instrument performance and product quality evolution. , 2007, , .		0
124	Maximum likelihood estimation of SAR Azimuth Antenna by means of Persistent Point Scatterers. , 2012, , .		0
125	Experimental assessment of the PS-cal technique over COSMO-SKYMED high resolution SAR data. , 2012, , .		0
126	Correction to â€œAtmospheric Phase Screen in Ground-Based Radar: Statistics and Compensationâ€•[May 11 537-541]. IEEE Geoscience and Remote Sensing Letters, 2013, 10, 204-204.	3.1	0

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127	On the calibration of polarimetric SAR data with a numerical method. , 2013, , .		0
128	LP norm SAR tomography by iteratively reweighted least square: First results. , 2014, , .		0
129	Statistical characterization of clutter decorrelation for medium and long integration time imaging. , 2015, , .		0
130	Quasi geostationary, comsat-compatible SAR: Solutions for payload design. , 2015, , .		0
131	Analysis of Sentinel-1A FDBAQ after commissioning phase. , 2015, , .		0
132	A flexible frequency domain backgruond clutter SAR simulator for GMTI applications. , 2015, , .		0
133	An experimental and theoretical comparative study of RADAR Ka band backscatter. , 2015, , .		0
134	Track compensation and calibration of continuous monitoring GEOSAR missions. , 2016, , .		0
135	Atmospheric Slant Delay from SAR Interferometry, GNSS and Numerical Weather Prediction Model: A Comparison Study in View of a Geosynchronous SAR Mission. , 2018, , .		0
136	Sentinel-l Radiometric Accuracy Enhancement Exploiting Antenna Model Refinement Technique. , 2018, , .		0
137	Coherence Change Detection For Sentinel-1 Sar: Methods And Applications. , 2018, , .		0
138	Impact of the RFI Generated by Active Leo Systems on a Nearly-Geostationary SAR System. , 2019, , .		0
139	Decorrelation in GEO SARs due to radio frequency interferences. Journal of Engineering, 2019, 2019, 7039-7041.	1.1	0
140	A NOVEL INDEX FOR TEMPORAL STABILITY ANALYSIS IN SPACE AND TIME OF SAR-DERIVED SCENES. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLIII-B3-2020, 1577-1583.	0.2	0
141	MIMO SAR FORMATIONS: ORBITAL DIAMETER AND SYNCHRONIZATION TOLERANCES. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLIII-B1-2020, 631-635.	0.2	0
142	Passive sensing by Sentinel-1 SAR: Methods and applications. Remote Sensing of Environment, 2022, 270, 112866.	11.0	0
143	Improving the Split-Spectrum Method for Sentinel-1 Differential TOPSAR Interferometry. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	3.1	0