Juan M. Lopez-Sanchez

List of Publications by Year
in descending order

136 papers	4,150 citations	94433 37 h-index	128289 60 g-index
136 all docs	136 docs citations	136 times ranked	3006 citing authors

#	Article	IF	Citations
1	3-D radar imaging using range migration techniques. IEEE Transactions on Antennas and Propagation, 2000, 48, 728-737.	5.1	372
2	Rice Phenology Monitoring by Means of SAR Polarimetry at X-Band. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 2695-2709.	6.3	192
3	Dual polarimetric radar vegetation index for crop growth monitoring using sentinel-1 SAR data. Remote Sensing of Environment, 2020, 247, 111954.	11.0	171
4	Advanced DInSAR analysis on mining areas: La Union case study (Murcia, SE Spain). Engineering Geology, 2007, 90, 148-159.	6.3	164
5	Polarimetric Response of Rice Fields at C-Band: Analysis and Phenology Retrieval. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 2977-2993.	6.3	138
6	Radar interferometry techniques for the study of ground subsidence phenomena: a review of practical issues through cases in Spain. Environmental Earth Sciences, 2014, 71, 163-181.	2.7	135
7	Mapping ground subsidence induced by aquifer overexploitation using advanced Differential SAR Interferometry: Vega Media of the Segura River (SE Spain) case study. Remote Sensing of Environment, 2005, 98, 269-283.	11.0	108
8	First Results of Rice Monitoring Practices in Spain by Means of Time Series of TerraSAR-X Dual-Pol Images. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2011, 4, 412-422.	4.9	107
9	Using wavelet tools to analyse seasonal variations from InSAR time-series data: a case study of the Huangtupo landslide. Landslides, 2016, 13, 437-450.	5.4	99
10	Retrieval of agricultural crop height from space: A comparison of SARÂtechniques. Remote Sensing of Environment, 2016, 187, 130-144.	11.0	80
11	Retrieval of biophysical parameters of agricultural crops using polarimetric SAR interferometry. IEEE Transactions on Geoscience and Remote Sensing, 2005, 43, 683-694.	6.3	78
12	Applying the Freemanâ€“Durden Decomposition Concept to Polarimetric SAR Interferometry. IEEE Transactions on Geoscience and Remote Sensing, 2010, 48, 466-479.	6.3	69
13	Wide-band polarimetric radar inversion studies for vegetation layers. IEEE Transactions on Geoscience and Remote Sensing, 1999, 37, 2430-2441.	6.3	68
14	A ground subsidence study based on DInSAR data: Calibration of soil parameters and subsidence prediction in Murcia City (Spain). Engineering Geology, 2010, 111, 19-30.	6.3	68
15	A Particle Filter Approach for InSAR Phase Filtering and Unwrapping. IEEE Transactions on Geoscience and Remote Sensing, 2009, 47, 1197-1211.	6.3	67
16	A New Polarimetric Change Detector in Radar Imagery. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 2986-3000.	6.3	66
17	Sentinel-1 InSAR Coherence for Land Cover Mapping: A Comparison of Multiple Feature-Based Classifiers. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2020, 13, 535-552.	4.9	64
18	A Contribution of Polarimetry to Satellite Differential SAR Interferometry: Increasing the Number of Pixel Candidates. IEEE Geoscience and Remote Sensing Letters, 2010, 7, 276-280.	3.1	63

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19	Time-Series of Sentinel-1 Interferometric Coherence and Backscatter for Crop-Type Mapping. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2020, 13, 4070-4084.	4.9	63
20	Analysis of subsidence using TerraSAR-X data: Murcia case study. Engineering Geology, 2010, 116, 284-295.	6.3	62
21	Retrieval of vegetation height in rice fields using polarimetric SAR interferometry with TanDEM-X data. Remote Sensing of Environment, 2017, 192, 30-44.	11.0	59
22	Mapping ground movements in open pit mining areas using differential SAR interferometry. International Journal of Rock Mechanics and Minings Sciences, 2010, 47, 1114-1125.	5.8	58
23	Crop Phenology Estimation Using a Multitemporal Model and a Kalman Filtering Strategy. IEEE Geoscience and Remote Sensing Letters, 2014, 11, 1081-1085.	3.1	56
24	Potentials of polarimetric SAR interferometry for agriculture monitoring. Radio Science, 2009, 44, .	1.6	55
25	First Demonstration of Agriculture Height Retrieval With PolInSAR Airborne Data. IEEE Geoscience and Remote Sensing Letters, 2012, 9, 242-246.	3.1	55
26	Monitoring an earthfill dam using differential SAR interferometry: La Pedrera dam, Alicante, Spain. Engineering Geology, 2013, 157, 21-32.	6.3	55
27	Polarimetric Approaches for Persistent Scatterers Interferometry. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 1667-1676.	6.3	51
28	Model Limitations and Parameter-Estimation Methods for Agricultural Applications of Polarimetric SAR Interferometry. IEEE Transactions on Geoscience and Remote Sensing, 2007, 45, 3481-3493.	6.3	49
29	Semi-Automatic Identification and Pre-Screening of Geologicalâ€“Geotechnical Deformational Processes Using Persistent Scatterer Interferometry Datasets. Remote Sensing, 2019, 11, 1675.	4.0	49
30	A Complete Procedure for Crop Phenology Estimation With PolSAR Data Based on the Complex Wishart Classifier. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 6505-6515.	6.3	46
31	A Novel Phenology Based Feature Subset Selection Technique Using Random Forest for Multitemporal PolSAR Crop Classification. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2018, 11, 4244-4258.	4.9	46
32	Extension of the 3-D range migration algorithm to cylindrical and spherical scanning geometries. IEEE Transactions on Antennas and Propagation, 2001, 49, 1434-1444.	5.1	44
33	Validation and comparison of Advanced Differential Interferometry Techniques: Murcia metropolitan area case study. ISPRS Journal of Photogrammetry and Remote Sensing, 2009, 64, 501-512.	11.1	44
34	Improvement of Persistent-Scatterer Interferometry Performance by Means of a Polarimetric Optimization. IEEE Geoscience and Remote Sensing Letters, 2012, 9, 609-613.	3.1	44
35	Estimation of Key Dates and Stages in Rice Crops Using Dual-Polarization SAR Time Series and a Particle Filtering Approach. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 1008-1018.	4.9	44
36	Study of the land subsidence in Orihuela City (SE Spain) using PSI data: Distribution, evolution and correlation with conditioning and triggering factors. Engineering Geology, 2010, 115, 105-121.	6.3	39

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37	Dynamical Approach for Real-Time Monitoring of Agricultural Crops. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 3278-3293.	6.3	39
38	Indoor experiments on polarimetric SAR interferometry. IEEE Transactions on Geoscience and Remote Sensing, 2000, 38, 671-684.	6.3	38
39	Dual-polarimetric descriptors from Sentinel-1 GRD SAR data for crop growth assessment. ISPRS Journal of Photogrammetry and Remote Sensing, 2021, 178, 20-35.	11.1	34
40	A deep seated compound rotational rock slide and rock spread in SE Spain: Structural control and DInSAR monitoring. Geomorphology, 2011, 129, 252-262.	2.6	33
41	Contribution to Real-Time Estimation of Crop Phenological States in a Dynamical Framework Based on NDVI Time Series: Data Fusion With SAR and Temperature. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 3512-3523.	4.9	33
42	Spatial Adaptive Speckle Filtering Driven by Temporal Polarimetric Statistics and Its Application to PSI. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 4548-4557.	6.3	32
43	Assessment of rice growth conditions in a semi-arid region of India using the Generalized Radar Vegetation Index derived from RADARSAT-2 polarimetric SAR data. Remote Sensing of Environment, 2020, 237, 111561.	11.0	32
44	Crop biophysical parameter retrieval from Sentinel-1 SAR data with a multi-target inversion of Water Cloud Model. International Journal of Remote Sensing, 2020, 41, 5503-5524.	2.9	32
45	Soil moisture retrieval over agricultural fields from L-band multi-incidence and multitemporal PolSAR observations using polarimetric decomposition techniques. Remote Sensing of Environment, 2021, 261, 112485.	11.0	30
46	A Modified Dual-Baseline PolInSAR Method for Forest Height Estimation. Remote Sensing, 2017, 9, 819.	4.0	29
47	Time Series of Hybrid-Polarity Parameters Over Agricultural Crops. IEEE Geoscience and Remote Sensing Letters, 2012, 9, 139-143.	3.1	26
48	On the Use of Generalized Volume Scattering Models for the Improvement of General Polarimetric Model-Based Decomposition. Remote Sensing, 2017, 9, 117.	4.0	26
49	Forensic analysis of buildings affected by mining subsidence based on Differential Interferometry (Part III). Engineering Failure Analysis, 2012, 24, 67-76.	4.0	25
50	On the Use of Neumann Decomposition for Crop Classification Using Multi-Temporal RADARSAT-2 Polarimetric SAR Data. Remote Sensing, 2019, 11, 776.	4.0	25
51	Influence of Incidence Angle on the Coherent Copolar Polarimetric Response of Rice at X-Band. IEEE Geoscience and Remote Sensing Letters, 2015, 12, 249-253.	3.1	24
52	Coherence Loci for a Homogeneous Volume Over a Double-Bounce Ground Return. IEEE Geoscience and Remote Sensing Letters, 2007, 4, 317-321.	3.1	23
53	Quantitative Analysis of Polarimetric Model-Based Decomposition Methods. Remote Sensing, 2016, 8, 977.	4.0	23
54	Novel clustering schemes for full and compact polarimetric SAR data: An application for rice phenology characterization. ISPRS Journal of Photogrammetry and Remote Sensing, 2020, 169, 135-151.	11.1	23

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55	Indoor wide-band polarimetric measurements on maize plants: a study of the differential extinction coefficient. IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 758-767.	6.3	22
56	Particle Filter Approach for Real-Time Estimation of Crop Phenological States Using Time Series of NDVI Images. Remote Sensing, 2016, 8, 610.	4.0	22
57	Exploring TanDEM-X Interferometric Products for Crop-Type Mapping. Remote Sensing, 2020, 12, 1774.	4.0	21
58	Crop Monitoring and Classification Using Polarimetric RADARSAT-2 Time-Series Data Across Growing Season: A Case Study in Southwestern Ontario, Canada. Remote Sensing, 2021, 13, 1394.	4.0	21
59	A New Polarimetric Persistent Scatterer Interferometry Method Using Temporal Coherence Optimization. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 6547-6555.	6.3	20
60	An electromagnetic scattering model for multiple tree trunks above a tilted rough ground plane. IEEE Transactions on Geoscience and Remote Sensing, 1999, 37, 659-667.	6.3	19
61	Combination of Direct and Double-Bounce Ground Responses in the Homogeneous Oriented Volume Over Ground Model. IEEE Geoscience and Remote Sensing Letters, 2011, 8, 54-58.	3.1	19
62	Model-Based Decomposition of Dual-Pol SAR Data: Application to Sentinel-1. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-19.	6.3	19
63	A Simple RVoG Test for PolInSAR Data. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 1028-1040.	4.9	18
64	Using a Grid-Based Filter to Solve InSAR Phase Unwrapping. IEEE Geoscience and Remote Sensing Letters, 2008, 5, 147-151.	3.1	17
65	Retrieval of phenological stages of onion fields during the first year of growth by means of C-band polarimetric SAR measurements. International Journal of Remote Sensing, 2015, 36, 3077-3096.	2.9	17
66	Multi-Temporal Dual- and Quad-Polarimetric Synthetic Aperture Radar Data for Crop-Type Mapping. Remote Sensing, 2019, 11, 1518.	4.0	17
67	Selection of PolSAR Observables for Crop Biophysical Variable Estimation With Global Sensitivity Analysis. IEEE Geoscience and Remote Sensing Letters, 2019, 16, 766-770.	3.1	17
68	Indoor Polarimetric Radar Measurements On Vegetation Samples At L, S, c aNd x band. Journal of Electromagnetic Waves and Applications, 2000, 14, 205-231.	1.6	16
69	Identification of potential subsidence related to pumping in the AlmerÃa basin (SE Spain). Hydrological Processes, 2012, 26, 731-740.	2.6	16
70	Canopy Height Estimation in Mediterranean Forests of Spain With TanDEM-X Data. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 2956-2970.	4.9	16
71	Crop Height Estimation of Corn from Multi-Year RADARSAT-2 Polarimetric Observables Using Machine Learning. Remote Sensing, 2021, 13, 392.	4.0	16
72	Rice phenology mapping using novel target characterization parameters from polarimetric SAR data. International Journal of Remote Sensing, 2021, 42, 5515-5539.	2.9	16

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73	An Optimized Algorithm for InSAR Phase Unwrapping Based on Particle Filtering, Matrix Pencil, and Region-Growing Techniques. IEEE Geoscience and Remote Sensing Letters, 2009, 6, 835-839.	3.1	15
74	POLARIMETRIC SAR MODEL FOR SOIL MOISTURE ESTIMATION OVER VINEYARDS AT C-BAND. Progress in Electromagnetics Research, 2013, 142, 639-665.	4.4	15
75	An Improved Phase Filter for Differential SAR Interferometry Based on an Iterative Method. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 4477-4491.	6.3	15
76	A Modified General Polarimetric Model-Based Decomposition Method With the Simplified Neumann Volume Scattering Model. IEEE Geoscience and Remote Sensing Letters, 2018, 15, 1229-1233.	3.1	15
77	Spatial Analysis of Land Subsidence in the San Luis Potosi Valley Induced by Aquifer Overexploitation Using the Coherent Pixels Technique (CPT) and Sentinel-1 InSAR Observation. Remote Sensing, 2020, 12, 3822.	4.0	15
78	Polarimetric radar interferometry for improved mine detection and surface clutter rejection. IEEE Transactions on Geoscience and Remote Sensing, 2001, 39, 1271-1278.	6.3	14
79	Thermal Noise Removal From Polarimetric Sentinel-1 Data. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	3.1	14
80	Multitemporal Polarimetric SAR Change Detection for Crop Monitoring and Crop Type Classification. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 12361-12374.	4.9	14
81	Extension of the chirp scaling algorithm to 3-D near-field wideband radar imaging. IET Radar, Sonar & Navigation, 2003, 150, 152.	2.1	9
82	Efficient Interpolation of SAR Images for Coregistration in SAR Interferometry. IEEE Geoscience and Remote Sensing Letters, 2007, 4, 411-415.	3.1	9
83	Influence of Incidence Angle in the Correlation of C-band Polarimetric Parameters with Biophysical Variables of Rain-fed Crops. Canadian Journal of Remote Sensing, 2018, 44, 643-659.	2.4	9
84	Added Value of Coherent Copolar Polarimetry at X-Band for Crop-Type Mapping. IEEE Geoscience and Remote Sensing Letters, 2020, 17, 819-823.	3.1	9
85	A Review of Crop Height Retrieval Using InSAR Strategies: Techniques and Challenges. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 7911-7930.	4.9	8
86	Nonuniform FFTs (NUFFT) algorithms applied to SAR imaging. , 2004, 5236, 72.		7
87	Estimation of RVoG Scene Parameters by Means of PolInSAR With TanDEM-X Data: Effect of the Double-Bounce Contribution. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 7283-7304.	6.3	7
88	Crop Classification Based on the Physically Constrained General Model-Based Decomposition Using Multi-Temporal RADARSAT-2 Data. Remote Sensing, 2022, 14, 2668.	4.0	7
89	Analysis of the polarimetric response of vineyards at C-band. Canadian Journal of Remote Sensing, 2012, 38, 223-239.	2.4	6
90	Particle filter approach for crop phenological stage estimation using time series of NDVI images. , 2015, , .		6

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91	Monitoring Agricultural Fields Using an Optimisation of the Difference of Covariance Matrices for Polsar. , 2018, , .		5
92	Impact of SAR Image Resolution on Polarimetric Persistent Scatterer Interferometry With Amplitude Dispersion Optimization. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-10.	6.3	5
93	Synergistic Use of TanDEM-X and Landsat-8 Data for Crop-Type Classification and Monitoring. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 8744-8760.	4.9	5
94	Numerical Simulation of the Full-Polarimetric Emissivity of Vines and Comparison with Experimental Data. Remote Sensing, 2009, 1, 300-317.	4.0	4
95	Subsidence monitoring using polarimetric persistent scatterers interferometry. , 2011, , .		4
96	PolSAR-Ap: Exploitation of fully polarimetric SAR data for application demonstration. , 2015, , .		4
97	Contribution of Polarimetry and Multi-Incidence to Soil Moisture Estimation Over Agricultural Fields Based on Time Series of L-Band SAR Data. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 300-313.	4.9	4
98	DInSAR monitoring of land subsidence in Orihuela City, Spain: Comparison with geotechnical data. , 2007, , .		3
99	Introduction of a grid-based filter approach for InSAR phase filtering and unwrapping. , 2007, , .		3
100	Microwave Scattering Profiles of a Rice Sample by Means of Polarization Coherence Tomography. , 2008, , .		3
101	Application of TerraSAR-X data to the monitoring of urban subsidence in the city of Murcia. , 2010, , .		3
102	Optimal Grid-Based Filtering for Crop Phenology Estimation with Sentinel-1 SAR Data. Remote Sensing, 2021, 13, 4332.	4.0	3
103	Segura River Aquifer (SE Spain) Obtained by Means of Advanced DInSAR. , 2006, , .		2
104	Determination of scattering mechanisms inside rice plants by means of PCT and high resolution radar imaging. , 2009, , .		2
105	Monitoring and retrieving rice phenology by means of satellite SAR polarimetry at X-band. , 2011, , .		2
106	Experimental validation of the interferometric coherence formulation in single-transmit mode. , 2012, , .		2
107	Special Issue on Polarimetric SAR Techniques and Applications. Applied Sciences (Switzerland), 2017, 7, 768.	2.5	2
108	Evaluation of the Multilook Size in Polarimetric Optimization of Differential SAR Interferograms. IEEE Geoscience and Remote Sensing Letters, 2018, 15, 1407-1411.	3.1	2

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109	Application of the Trace Coherence to HH-VV PolInSAR TanDEM-X Data for Vegetation Height Estimation. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-10.	6.3	2
110	Fusion of Multi-Temporal PAZ and Sentinel-1 Data for Crop Classification. Remote Sensing, 2021, 13, 3915.	4.0	2
111	ValInSAR: A Systematic Approach for the Validation of Differential SAR Interferometry in Land Subsidence Areas. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2022, 15, 3650-3671.	4.9	2
112	Buried Mine Detection by Polarimetric Radar Interferometry. , 2002, , 545-553.		1
113	Advances in polinsar retrieval algorithms of agricultural crops. , 0, , .		1
114	InSAR Phase Unwrapping by Means of a Particle Filter. , 2008, , .		1
115	On the potential of TanDEM-X for the retrieval of agriculture crop parameters by single-pass PolInSAR. , 2011, , .		1
116	Test of equi-scattering mechanisms for POLInSAR applications with TanDEM-X. , 2011, , .		1
117	An optimal combination of a hydrological model and PSI to estimate land subsidence driven by piezometric level changes. , 2015, , .		1
118	Sar algorithms for crop height estimation: The paddy-rice case study. , 2016, , .		1
119	Effect of the Double-Bounce Contribution in Polinsar-Based Height Estimates of Rice Crops Using Tandem-X Bistatic Data. , 2018, , .		1
120	Wide Band Polarimetric Interferometry for DEM Improvement and Retrieval of Vegetation Height. , 1999, , .		0
121	<title>Near-field wideband 2D and 3D radar imaging using an extended chirp scaling algorithm</title>. , 2002, 4543, 198.		0
122	Annth-order expression of the frequency domain impulse response of a synthetic aperture system and its applications. Microwave and Optical Technology Letters, 2003, 36, 289-292.	1.4	0
123	Electromagnetic model of rice crops for wideband POLINSAR. , 2004, 5232, 635.		0
124	Complete Inversion of Agricultural Vegetation Parameters by Pol-InSAR: Multibaseline and .k-radar Approaches. , 2006, , .		0
125	Volume and double-bounce decorrelation effects in the OVoG model for Single-Tx PolInSAR. , 2007, , .		0
126	Image coregistration in SAR interferometry only by means of arithmetic operations. , 2007, , .		0

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127	Time series of polarimetric and interferometric observations of TerraSAR-X data over rice fields in Spain. , 2009, , .		0
128	A combination of particle filter, matrix pencil and region growing techniques for phase unwrapping in SAR interferometry. , 2009, , .		0
129	Incoherent electromagnetic model for vineyards at C-band. , 2012, , .		0
130	Interferometric SAR for characterization of wetland lakes as a function of suspending sediment cover and depth. , 2017, , .		0
131	Global Sensitivity Analysis of Polarimetric Data to Retrieve Biophysical Parameters of Canola and Barley Crops. , 2018, , .		0
132	Iterative Filtering Based on Adaptive Chebyshev Kernel Functions for Noise Suppression in Differential SAR Interferograms. , 2018, , .		0
133	Impact of SAR Image Resolution on the Performance of the Amplitude Dispersion Optimization for Polarimetric Persistent Scatterer Interferometry. , 2021, , .		0
134	NEW MICROWAVE-BASED MISSIONS APPLICATIONS FOR RAINFED CROPS CHARACTERIZATION. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLI-B1, 101-107.	0.2	0
135	Comparing Insar Methodologies for the Retrieval of Paddy Rice Height with TanDEM-X Data. , 2020, , .		0
136	Evaluation of PolInSAR Observables for Crop-Type Mapping Using Bistatic TanDEM-X Data. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	3.1	0