

Mattia Crespi

List of Publications by Year in descending order

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107
papers

1,695
citations

331670

21
h-index

345221

36
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116
all docs

116
docs citations

116
times ranked

1825
citing authors

#	ARTICLE	IF	CITATIONS
1	Measurement of the neutrino velocity with the OPERA detector in the CNGS beam. Journal of High Energy Physics, 2012, 2012, 1.	4.7	116
2	Real-time GPS seismology with a stand-alone receiver: A preliminary feasibility demonstration. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	115
3	Real-Time Detection of Tsunami Ionospheric Disturbances with a Stand-Alone GNSS Receiver: A Preliminary Feasibility Demonstration. Scientific Reports, 2017, 7, 46607.	3.3	86
4	Accuracy assessment of high resolution satellite imagery orientation by leave-one-out method. ISPRS Journal of Photogrammetry and Remote Sensing, 2008, 63, 427-440.	11.1	80
5	Monitoring the Impact of Land Cover Change on Surface Urban Heat Island through Google Earth Engine: Proposal of a Global Methodology, First Applications and Problems. Remote Sensing, 2018, 10, 1488.	4.0	77
6	Space geodesy validation of the global lithospheric flow. Geophysical Journal International, 2007, 168, 491-506.	2.4	73
7	Geodetic strain rate and earthquake size: New clues for seismic hazard studies. Physics of the Earth and Planetary Interiors, 2012, 206-207, 67-75.	1.9	67
8	A Procedure for High Resolution Satellite Imagery Quality Assessment. Sensors, 2009, 9, 3289-3313.	3.8	59
9	GPS Near-Real-Time Coseismic Displacements for the Great Tohoku-oki Earthquake. IEEE Geoscience and Remote Sensing Letters, 2013, 10, 372-376.	3.1	49
10	High-Resolution SAR Radargrammetry: A First Application With COSMO-SkyMed SpotLight Imagery. IEEE Geoscience and Remote Sensing Letters, 2011, 8, 1100-1104.	3.1	48
11	Global Navigation Satellite Systems Seismology for the 2012 Mw 6.1 Emilia Earthquake: Exploiting the VADASE Algorithm. Seismological Research Letters, 2014, 85, 649-656.	1.9	47
12	Repeated GPS surveys across the Ionian Sea: evidence of crustal deformations. Geophysical Journal International, 1996, 127, 257-267.	2.4	34
13	Strain rate relaxation of normal and thrust faults in Italy. Geophysical Journal International, 2013, 195, 815-820.	2.4	33
14	DSM generation from high resolution imagery: applications with WorldView-1 and Geoeye-1. European Journal of Remote Sensing, 0, , 41-53.	0.2	33
15	py2DIC: A New Free and Open Source Software for Displacement and Strain Measurements in the Field of Experimental Mechanics. Sensors, 2019, 19, 3832.	3.8	29
16	Multi-Temporal X-Band Radar Interferometry Using Corner Reflectors: Application and Validation at the Corvara Landslide (Dolomites, Italy). Remote Sensing, 2017, 9, 739.	4.0	27
17	Precipitable water vapour content from ESR/SKYNET sunâ€“sky radiometers: validation against GNSS/GPS and AERONET over three different sites in Europe. Atmospheric Measurement Techniques, 2018, 11, 81-94.	3.1	27
18	Preliminary Performance Analysis with a GPS+Galileo Enabled Chipset Embedded in a Smartphone. , 0, , .		27

#	ARTICLE	IF	CITATIONS
19	Advantages of Geostationary Satellites for Ionospheric Anomaly Studies: Ionospheric Plasma Depletion Following a Rocket Launch. <i>Remote Sensing</i> , 2019, 11, 1734.	4.0	26
20	VADASE Reliability and Accuracy of Real-Time Displacement Estimation: Application to the Central Italy 2016 Earthquakes. <i>Remote Sensing</i> , 2018, 10, 1201.	4.0	25
21	GPS sensitivity analysis applied to non-permanent deformation control networks. <i>Journal of Geodesy</i> , 1999, 73, 158-167.	3.6	23
22	Tectonically asymmetric Earth: From net rotation to polarized westward drift of the lithosphere. <i>Geoscience Frontiers</i> , 2015, 6, 401-418.	8.4	23
23	Evaluation and comparison of different radargrammetric approaches for Digital Surface Models generation from COSMO-SkyMed, TerraSAR-X, RADARSAT-2 imagery: Analysis of Beauport (Canada) test site. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2015, 100, 60-70.	11.1	23
24	New Research in Polarimetric SAR Technique for Archaeological Purposes using ALOS PALSAR Data. <i>Archaeological Prospection</i> , 2013, 20, 79-87.	2.2	22
25	GNSS total variometric approach: first demonstration of a tool for real-time tsunami genesis estimation. <i>Scientific Reports</i> , 2021, 11, 3114.	3.3	22
26	A new rigorous model for high-resolution satellite imagery orientation: application to EROS A and QuickBird. <i>International Journal of Remote Sensing</i> , 2012, 33, 2321-2354.	2.9	20
27	Open source tool for DSMs generation from high resolution optical satellite imagery: development and testing of an OSSIM plug-in. <i>International Journal of Remote Sensing</i> , 2017, 38, 1788-1808.	2.9	18
28	The variometric approach to real-time high-frequency geodesy. <i>Rendiconti Lincei</i> , 2018, 29, 95-108.	2.2	18
29	High-precision multi-constellation GNSS: methods, selected applications and challenges. <i>Measurement Science and Technology</i> , 2020, 31, 010101.	2.6	18
30	Data assimilation of GPS-ZTD into the RAMS model through 3D-Var: preliminary results at the regional scale. <i>Measurement Science and Technology</i> , 2019, 30, 055801.	2.6	17
31	VADASE: State of the Art and New Developments of a Third Way to GNSS Seismology. <i>International Association of Geodesy Symposia</i> , 2015, , 59-66.	0.4	16
32	Polarimetric Multifrequency and Multi-incidence SAR Sensors Analysis for Archaeological Purposes. <i>Archaeological Prospection</i> , 2013, 20, 89-96.	2.2	15
33	GPS Seismology for a moderate magnitude earthquake: Lessons learned from the analysis of the 31 October 2013 ML 6.4 Ruisui (Taiwan) earthquake. <i>Annals of Geophysics</i> , 2017, 60, .	1.0	15
34	The potential of WorldView-2 for ortho-image production within the "Control with Remote Sensing Programme" of the European Commission. <i>International Journal of Applied Earth Observation and Geoinformation</i> , 2012, 19, 335-347.	2.8	14
35	High-rate GPS positioning for tracing anthropogenic seismic activity: The 29 January 2019 mining tremor in Legnica- Głogów Copper District, Poland. <i>Measurement: Journal of the International Measurement Confederation</i> , 2021, 168, 108396.	5.0	14
36	DSM Generation from Single and Cross-Sensor Multi-View Satellite Images Using the New Agisoft Metashape: The Case Studies of Trento and Matera (Italy). <i>Remote Sensing</i> , 2021, 13, 593.	4.0	14

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37	Reference frames for GNSS positioning services: Some problems and proposed solutions. Journal of Applied Geodesy, 2008, 2, .	1.1	13
38	Reduction in <scp>TIMP</scp>â€² serum levels predicts remission of inflammatory bowel diseases. European Journal of Clinical Investigation, 2018, 48, e13002.	3.4	13
39	Space-Time Precursory Features within Ground Velocities and Seismicity in North-Central Italy. Pure and Applied Geophysics, 2020, 177, 369-386.	1.9	13
40	GeoEye-1: Analysis of Radiometric and Geometric Capability. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2010, , 354-369.	0.3	13
41	On the feasibility to integrate low-cost MEMS accelerometers and GNSS receivers. Advances in Space Research, 2017, 59, 2764-2778.	2.6	12
42	Drought trend analysis in a semi-arid area of Iraq based on Normalized Difference Vegetation Index, Normalized Difference Water Index and Standardized Precipitation Index. Journal of Arid Land, 2021, 13, 413-430.	2.3	12
43	A radargrammetric orientation model and a RPCs generation tool for COSMO-SkyMed and TerraSAR-X High Resolution SAR. European Journal of Remote Sensing, 0, , 55-67.	0.2	12
44	Multivariate outlier detection based on robust computation of Mahalanobis distances. Application to positioning assisted by RTK GNSS Networks. International Journal of Applied Earth Observation and Geoinformation, 2012, 16, 94-100.	2.8	11
45	Fast terrain modelling for hydrogeological risk mapping and emergency management: the contribution of high-resolution satellite SAR imagery. Geomatics, Natural Hazards and Risk, 2015, 6, 554-582.	4.3	11
46	Sea level rise scenario for 2100 A.D. for the archaeological site of Motya. Rendiconti Lincei, 2019, 30, 747-757.	2.2	11
47	How geodesy can contribute to the understanding and prediction of earthquakes. Rendiconti Lincei, 2018, 29, 81-93.	2.2	10
48	FREE GLOBAL DSM ASSESSMENT ON LARGE SCALE AREAS EXPLOITING THE POTENTIALITIES OF THE INNOVATIVE GOOGLE EARTH ENGINE PLATFORM. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLII-1/W1, 627-633.	0.2	10
49	A NEW DIGITAL IMAGE CORRELATION SOFTWARE FOR DISPLACEMENTS FIELD MEASUREMENT IN STRUCTURAL APPLICATIONS. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLII-4/W2, 139-145.	0.2	10
50	Global and local reference frames. Rendiconti Lincei, 2015, 26, 25-31.	2.2	8
51	Exploiting Performance of Different Low-Cost Sensors for Small Amplitude Oscillatory Motion Monitoring: Preliminary Comparisons in View of Possible Integration. Journal of Sensors, 2016, 2016, 1-10.	1.1	8
52	Consumer GNSS chipsets-based, dual-frequency receivers as enablers of precise navigation and dense networks. Measurement Science and Technology, 2019, 30, 044007.	2.6	8
53	Course of oesophageal varices and performance of noninvasive predictors following Hepatitis C Virus clearance in compensated advanced chronic liver disease. European Journal of Clinical Investigation, 2020, 50, e13231.	3.4	8
54	FOSS4G DATE FOR DSM GENERATION: SENSITIVITY ANALYSIS OF THE SEMI-GLOBAL BLOCK MATCHING PARAMETERS. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLII-2/W13, 67-72.	0.2	8

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55	TACK PROJECT: TUNNEL AND BRIDGE AUTOMATIC CRACK MONITORING USING DEEP LEARNING AND PHOTOGRAMMETRY. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLIII-B4-2020, 741-745.	0.2	7
56	SAR-SIFT for Matching Multiple SAR Images and Radargrammetry. PFG - Journal of Photogrammetry, Remote Sensing and Geoinformation Science, 2017, 85, 149-158.	1.1	6
57	DIGITAL IMAGE CORRELATION FROM COMMERCIAL TO FOS SOFTWARE: A MATURE TECHNIQUE FOR FULL-FIELD DISPLACEMENT MEASUREMENTS. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLII-2, 91-95.	0.2	6
58	COPERNICUS BIG DATA AND GOOGLE EARTH ENGINE FOR GLACIER SURFACE VELOCITY FIELD MONITORING: FEASIBILITY DEMONSTRATION ON SAN RAFAEL AND SAN QUINTIN GLACIERS. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLII-3, 289-294.	0.2	6
59	GLACIER VOLUME CHANGE MONITORING FROM UAV OBSERVATIONS: ISSUES AND POTENTIALS OF STATE-OF-THE-ART TECHNIQUES. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLIII-B2-2020, 1041-1048.	0.2	6
60	Software available for analyzing GPS deformation. Eos, 1998, 79, 259-259.	0.1	5
61	DSM generation from optical and SAR high resolution satellite imagery: Methodology, problems and potentialities. , 2012, , .		5
62	Deformations Detection by a Bayesian Approach: Prior Information Representation and Testing Criteria Definition. , 2006, , 30-37.		5
63	MONITORING URBAN HEAT ISLAND THROUGH GOOGLE EARTH ENGINE: POTENTIALITIES AND DIFFICULTIES IN DIFFERENT CITIES OF THE UNITED STATES. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLII-3, 1467-1472.	0.2	5
64	DSM generation from very high optical and radar sensors: Problems and potentialities along the road from the 3D geometric modeling to the Surface Model. , 2010, , .		4
65	Geodesy and geomatics: the cutting edge. Rendiconti Lincei, 2015, 26, 1-3.	2.2	4
66	3D modelling of archaeological small finds by the structure sensor range camera: comparison of different scanning applications. Applied Geomatics, 2018, 10, 399-413.	2.5	4
67	Estimation of Wave Characteristics Based on Global Navigation Satellite System Data Installed on Board Sailboats. Sensors, 2019, 19, 2295.	3.8	4
68	URBAN GEO BIG DATA. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLII-4/W14, 23-30.	0.2	4
69	Orientation, orthorectification, terrain and city modeling from Cartosat-1 stereo imagery: preliminary results in the first phase of ISPRS-ISRO C-SAP. Journal of Applied Remote Sensing, 2008, 2, 023523.	1.3	3
70	Wave characteristics estimation by GPS receivers installed on a sailboat travelling off-shore. , 2018, , .		3
71	FOSS4G DATE for DSMs generation from tri-stereo optical satellite images: development and first results. European Journal of Remote Sensing, 2018, 51, 472-485.	3.5	3
72	Impact of Galileo data on the solutions of the variometric approach for displacement analysis. Advances in Space Research, 2019, 63, 3053-3061.	2.6	3

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73	ANALYSIS OF THE FLOATING CAR DATA OF TURIN PUBLIC TRANSPORTATION SYSTEM: FIRST RESULTS. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLII-4, 515-521.	0.2	3
74	Tids Detection from Ship-Based GNSS Receiver: First Test on 2010 Maule Tsunami. , 2020, , .		3
75	A multi-sensor polarimetric analysis over archaeological sites. , 2012, , .		2
76	Monitoring ground displacements at centimeter level exploiting TerraSAR-X range measurements. , 2015, , .		2
77	Comparison of Different Techniques for Tropospheric Wet Delay Retrieval Over South America and Surrounding Oceans. International Association of Geodesy Symposia, 2015, , 147-154.	0.4	2
78	Radargrammetric Digital Surface Models Generation from High Resolution Satellite SAR Imagery: Methodology and Case Studies. International Association of Geodesy Symposia, 2015, , 233-240.	0.4	2
79	3D remote sensing and urban remote sensing. International Journal of Remote Sensing, 2016, 37, 3437-3438.	2.9	2
80	Foreword to the European journal of remote sensing special issue: urban remote sensing “ challenges and solutions. European Journal of Remote Sensing, 2019, 52, 1-1.	3.5	2
81	Met-Ocean and Heeling Analysis During the Violent 21/22 October 2014 Storm Faced by the Sailboat ECO40 in the Gulf of Lion: Comparison Between Measured and Numerical Wind Data. Communications in Computer and Information Science, 2016, , 86-105.	0.5	2
82	3D MODELLING OF ARCHAEOLOGICAL SMALL FINDS BY A LOW-COST RANGE CAMERA: METHODOLOGY AND FIRST RESULTS. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLII-5/W1, 589-592.	0.2	2
83	EXPLOITING SENTINEL-1 AMPLITUDE DATA FOR GLACIER SURFACE VELOCITY FIELD MEASUREMENTS: FEASIBILITY DEMONSTRATION ON BALTORO GLACIER. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLI-B7, 783-788.	0.2	2
84	CENTIMETER COSMO-SKYMED RANGE MEASUREMENTS FOR MONITORING GROUND DISPLACEMENTS. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLI-B7, 815-820.	0.2	2
85	UPGRADE OF FOSS DATE PLUG-IN: IMPLEMENTATION OF A NEW RADARGRAMMETRIC DSM GENERATION CAPABILITY. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLI-B7, 821-825.	0.2	2
86	UPGRADE OF FOSS DATE PLUG-IN: IMPLEMENTATION OF A NEW RADARGRAMMETRIC DSM GENERATION CAPABILITY. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLI-B7, 821-825.	0.2	2
87	KINECT V2 AND RGB STEREO CAMERAS INTEGRATION FOR DEPTH MAP ENHANCEMENT. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLI-B5, 699-702.	0.2	2
88	EXPLOITING SENTINEL-1 AMPLITUDE DATA FOR GLACIER SURFACE VELOCITY FIELD MEASUREMENTS: FEASIBILITY DEMONSTRATION ON BALTORO GLACIER. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLI-B7, 783-788.	0.2	2
89	COSMO-SkyMed Range Measurements for Displacement Monitoring Using Amplitude Persistent Scatterers. , 2020, , .		2
90	Large Scale Assessment of Free Global DEMs Through the Google Earth Engine Platform. , 2020, , .		2

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91	High Resolution Radargrammetry " 3D Terrain Modeling. , 2014, , .		1
92	Editorial for Special Issue "Advances in SAR: Sensors, Methodologies, and Applications" Remote Sensing, 2018, 10, 1233.	4.0	1
93	Orthoimage Generation by GÃ–KÃ–RK-1: A Test Case in Rome. , 2019, , .		1
94	The integration between seismology and geodesy for intermediate-term narrow-range earthquake prediction according to NDSHA. , 2022, , 97-112.		1
95	3D MODELLING BY LOW-COST RANGE CAMERA: SOFTWARE EVALUATION AND COMPARISON. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLII-2/W8, 209-212.	0.2	1
96	A TOOL FOR CROWDSOURCED BUILDING INFORMATION MODELING THROUGH LOW-COST RANGE CAMERA: PRELIMINARY DEMONSTRATION AND POTENTIAL. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLII-2/W8, 75-81.	0.2	1
97	First Test of Agisoft Metashape Satellite Image Processing for DSM Generation: A Case Study in Trento with PÃ–iades Imagery. , 2020, , .		1
98	Employing high resolution satellite images to update urban maps at medium-large scale and its impact in developing countries. , 0, , .		0
99	Editorial for the Special Issue: "High-Precision GNSS: Methods, Open Problems and Geoscience Applications" Remote Sensing, 2020, 12, 1602.	4.0	0
100	Assessment of precipitable water vapour by use of a local GPS network and microwave ground-based radiometer. , 2001, , .		0
101	A New Continuous GPS Network to Monitor Deformations in the Iberian Peninsula (Topo-Iberia) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Symposia, 2012, , 387-392.	0.4	0
102	Radargrammetric Generation of DEMs from High Resolution Satellite SAR Imagery: A New tool for Landslide Hazard and Vulnerability Assessment. , 2013, , 417-424.		0
103	CENTIMETER COSMO-SKYMED RANGE MEASUREMENTS FOR MONITORING GROUND DISPLACEMENTS. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLI-B7, 815-820.	0.2	0
104	FOSS4G DATE ASSESSMENT ON THE ISPRS OPTICAL STEREO SATELLITE DATA: A BENCHMARK FOR DSM GENERATION. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLII-1/W1, 635-638.	0.2	0
105	Modeling the Near-field Ionospheric Disturbances During Earthquakes. , 0, , .		0
106	Pyrgi: analysis of possible climatic effects on a coastal archaeological site. Proceedings E Report, 0, , 17-27.	0.0	0
107	A Model of Plate Motions. , 2006, , 200-208.		0