

Belen Riveiro

List of Publications by Year in descending order

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Version: 2024-02-01

107
papers

2,777
citations

147566

31
h-index

205818

48
g-index

108
all docs

108
docs citations

108
times ranked

1966
citing authors

#	ARTICLE	IF	CITATIONS
1	Terrestrial laser scanning intensity data applied to damage detection for historical buildings. <i>Journal of Archaeological Science</i> , 2010, 37, 3037-3047.	1.2	150
2	Metrological evaluation of Microsoft Kinect and Asus Xtion sensors. <i>Measurement: Journal of the International Measurement Confederation</i> , 2013, 46, 1800-1806.	2.5	130
3	Terrestrial laser scanning and limit analysis of masonry arch bridges. <i>Construction and Building Materials</i> , 2011, 25, 1726-1735.	3.2	129
4	Automated processing of large point clouds for structural health monitoring of masonry arch bridges. <i>Automation in Construction</i> , 2016, 72, 258-268.	4.8	119
5	Structural assessment of masonry arch bridges by combination of non-destructive testing techniques and three-dimensional numerical modelling: Application to Vilanova bridge. <i>Engineering Structures</i> , 2017, 148, 621-638.	2.6	114
6	Photogrammetric 3D modelling and mechanical analysis of masonry arches: An approach based on a discontinuous model of voussoirs. <i>Automation in Construction</i> , 2011, 20, 380-388.	4.8	87
7	The combination of geomatic approaches and operational modal analysis to improve calibration of finite element models: A case of study in Saint Torcato Church (Guimarães, Portugal). <i>Construction and Building Materials</i> , 2014, 70, 118-129.	3.2	86
8	Validation of terrestrial laser scanning and photogrammetry techniques for the measurement of vertical underclearance and beam geometry in structural inspection of bridges. <i>Measurement: Journal of the International Measurement Confederation</i> , 2013, 46, 784-794.	2.5	76
9	Segmentation and classification of road markings using MLS data. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2017, 123, 94-103.	4.9	73
10	Traffic sign detection in MLS acquired point clouds for geometric and image-based semantic inventory. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2016, 114, 92-101.	4.9	72
11	Review of Laser Scanning Technologies and Their Applications for Road and Railway Infrastructure Monitoring. <i>Infrastructures</i> , 2019, 4, 58.	1.4	72
12	Automatic detection of zebra crossings from mobile LiDAR data. <i>Optics and Laser Technology</i> , 2015, 70, 63-70.	2.2	69
13	Accuracy verification of the Lynx Mobile Mapper system. <i>Optics and Laser Technology</i> , 2013, 45, 578-586.	2.2	65
14	Modelling and strength evaluation of masonry bridges using terrestrial photogrammetry and finite elements. <i>Advances in Engineering Software</i> , 2016, 101, 136-148.	1.8	60
15	Automatic Segmentation and Shape-Based Classification of Retro-Reflective Traffic Signs from Mobile LiDAR Data. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2016, 9, 295-303.	2.3	60
16	Multidisciplinary approach to the assessment of historic structures based on the case of a masonry bridge in Galicia (Spain). <i>Computers and Structures</i> , 2011, 89, 1615-1627.	2.4	58
17	Automatic Inventory of Road Cross-Sections from Mobile Laser Scanning System. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2017, 32, 3-17.	6.3	57
18	Automatic Morphologic Analysis of Quasi-Periodic Masonry Walls from LiDAR. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2016, 31, 305-319.	6.3	52

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19	Automated detection and decomposition of railway tunnels from Mobile Laser Scanning Datasets. Automation in Construction, 2018, 96, 171-179.	4.8	49
20	An innovative method for remote measurement of minimum vertical underclearance in routine bridge inspection. Automation in Construction, 2012, 25, 34-40.	4.8	47
21	Non-destructive methodologies in the assessment of the masonry arch bridge of Traba, Spain. Engineering Failure Analysis, 2011, 18, 828-835.	1.8	44
22	Standard artifact for the geometric verification of terrestrial laser scanning systems. Optics and Laser Technology, 2011, 43, 1249-1256.	2.2	44
23	Exploiting synergies of mobile mapping sensors and deep learning for traffic sign recognition systems. Expert Systems With Applications, 2017, 89, 286-295.	4.4	44
24	Automatic 3D modelling of metal frame connections from LiDAR data for structural engineering purposes. ISPRS Journal of Photogrammetry and Remote Sensing, 2014, 96, 47-56.	4.9	43
25	Algorithm for beam deformation modeling from LiDAR data. Measurement: Journal of the International Measurement Confederation, 2015, 76, 20-31.	2.5	42
26	Photogrammetry and laser scanner technology applied to length measurements in car testing laboratories. Measurement: Journal of the International Measurement Confederation, 2012, 45, 354-363.	2.5	40
27	A novel methodology for the structural assessment of stone arches based on geometric data by integration of photogrammetry and ground-penetrating radar. Engineering Structures, 2012, 35, 296-306.	2.6	37
28	Characterization of the response of quasi-periodic masonry: Geometrical investigation, homogenization and application to the Guimarães castle, Portugal. Engineering Structures, 2013, 56, 621-641.	2.6	36
29	Scan-to-BIM for the infrastructure domain: Generation of IFC-compliant models of road infrastructure assets and semantics using 3D point cloud data. Automation in Construction, 2021, 127, 103703.	4.8	36
30	A novel approach to evaluate masonry arch stability on the basis of limit analysis theory and non-destructive geometric characterization. Automation in Construction, 2013, 31, 140-148.	4.8	35
31	3D Point Cloud to BIM: Semi-Automated Framework to Define IFC Alignment Entities from MLS-Acquired LiDAR Data of Highway Roads. Remote Sensing, 2020, 12, 2301.	1.8	35
32	Automatic segmentation of road overpasses and detection of mortar efflorescence using mobile LiDAR data. Optics and Laser Technology, 2013, 54, 353-361.	2.2	33
33	Automatic extraction of road features in urban environments using dense ALS data. International Journal of Applied Earth Observation and Geoinformation, 2018, 64, 226-236.	1.4	32
34	Ancient Stone Bridge Surveying by Ground-Penetrating Radar and Numerical Modeling Methods. Journal of Bridge Engineering, 2014, 19, 110-119.	1.4	28
35	Exploitation of Geometric Data provided by Laser Scanning to Create FEM Structural Models of Bridges. Journal of Performance of Constructed Facilities, 2016, 30, .	1.0	28
36	Detection of structural faults in piers of masonry arch bridges through automated processing of laser scanning data. Structural Control and Health Monitoring, 2018, 25, e2126.	1.9	27

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37	Inverse analysis of masonry arch bridges for damaged condition investigation: Application on Kakodiki bridge. <i>Engineering Structures</i> , 2016, 127, 388-401.	2.6	26
38	Point cloud semantic segmentation of complex railway environments using deep learning. <i>Automation in Construction</i> , 2022, 141, 104425.	4.8	26
39	Safety assessment on pedestrian crossing environments using MLS data. <i>Accident Analysis and Prevention</i> , 2018, 111, 328-337.	3.0	25
40	Three-dimensional discrete element modelling of rubble masonry structures from dense point clouds. <i>Automation in Construction</i> , 2020, 119, 103365.	4.8	24
41	Fully automated methodology for the delineation of railway lanes and the generation of IFC alignment models using 3D point cloud data. <i>Automation in Construction</i> , 2021, 126, 103684.	4.8	23
42	Non-destructive testing for the analysis of moisture in the masonry arch bridge of Lubians (Spain). <i>Structural Control and Health Monitoring</i> , 2013, 20, n/a-n/a.	1.9	21
43	Verification artifact for photogrammetric measurement systems. <i>Optical Engineering</i> , 2011, 50, 073603.	0.5	17
44	Performance testing of LiDAR exploitation software. <i>Computers and Geosciences</i> , 2013, 54, 122-129.	2.0	17
45	Automatic filtering of vehicles from mobile LiDAR datasets. <i>Measurement: Journal of the International Measurement Confederation</i> , 2014, 53, 215-223.	2.5	17
46	Algorithm for the analysis of the geometric properties of cross-sections of timber beams with lack of material from LIDAR data. <i>Materials and Structures/Materiaux Et Constructions</i> , 2016, 49, 4265-4278.	1.3	17
47	Algorithm for the analysis of deformations and stresses due to torsion in a metal beam from LIDAR data. <i>Structural Control and Health Monitoring</i> , 2016, 23, 1032-1046.	1.9	17
48	Automatic Point Cloud Semantic Segmentation of Complex Railway Environments. <i>Remote Sensing</i> , 2021, 13, 2332.	1.8	17
49	Experimental forensic scenes for the characterization of ground-penetrating radar wave response. <i>Forensic Science International</i> , 2012, 220, 50-58.	1.3	16
50	Automated processing of dense points clouds to automatically determine deformations in highly irregular timber structures. <i>Construction and Building Materials</i> , 2017, 146, 393-402.	3.2	16
51	Analytical T-stub model for the analysis of clamps in structural metal joints. <i>Journal of Constructional Steel Research</i> , 2017, 130, 138-147.	1.7	15
52	Structural evaluation of historic masonry arch bridges based on first hinge formation. <i>Construction and Building Materials</i> , 2013, 47, 569-578.	3.2	14
53	Experimental and numerical approaches for structural assessment in new footbridge designs (SFRSCC-GFPR hybrid structure). <i>Composite Structures</i> , 2015, 134, 95-105.	3.1	14
54	Probabilistic-based structural assessment of a historic stone arch bridge. <i>Structure and Infrastructure Engineering</i> , 2021, 17, 379-391.	2.0	13

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55	Application of Close Range Photogrammetry to Deck Measurement in Recreational Ships. <i>Sensors</i> , 2009, 9, 6991-7002.	2.1	12
56	Procedure to evaluate the accuracy of laser-scanning systems using a linear precision electro-mechanical actuator. <i>IET Science, Measurement and Technology</i> , 2012, 6, 6.	0.9	12
57	Laser Scanning Technology: Fundamentals, Principles and Applications in Infrastructure. <i>Structures and Infrastructures Series</i> , 2016, , 7-33.	0.2	12
58	POINTNET FOR THE AUTOMATIC CLASSIFICATION OF AERIAL POINT CLOUDS. <i>ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences</i> , 0, IV-2/W5, 445-452.	0.0	12
59	SEMANTIC SEGMENTATION OF POINT CLOUDS WITH POINTNET AND KPCONV ARCHITECTURES APPLIED TO RAILWAY TUNNELS. <i>ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences</i> , 0, V-2-2020, 281-288.	0.0	12
60	ORTHOIMAGE-BASED DOCUMENTATION OF ARCHAEOLOGICAL STRUCTURES: THE CASE OF A MEDIAEVAL WALL IN PONTEVEDRA, SPAIN. <i>Archaeometry</i> , 2011, 53, 858-872.	0.6	11
61	A case study of measurements of deformations due to different loads in pieces less than 1m from lidar data. <i>Measurement: Journal of the International Measurement Confederation</i> , 2020, 151, 107196.	2.5	11
62	Structural health control of historical steel structures using HBIM. <i>Automation in Construction</i> , 2022, 140, 104308.	4.8	11
63	A Methodology for the Inventory of Historical Infrastructures: Documentation, Current State, and Influencing Factors. <i>International Journal of Architectural Heritage</i> , 2011, 5, 629-646.	1.7	10
64	Successful Applications of Geotechnologies for the Evaluation of Road Infrastructures. <i>Remote Sensing</i> , 2014, 6, 7800-7818.	1.8	9
65	The Integration of Geotechnologies in the Evaluation of a Wine Cellar Structure through the Finite Element Method. <i>Remote Sensing</i> , 2014, 6, 11107-11126.	1.8	9
66	Comparison of heuristic and deep learning-based methods for ground classification from aerial point clouds. <i>International Journal of Digital Earth</i> , 2020, 13, 1115-1134.	1.6	8
67	Analysis of steel connections with girder clamps according to the bolts preload. <i>Journal of Constructional Steel Research</i> , 2020, 168, 105866.	1.7	8
68	GPR analysis of a masonry arch for structural assessment. , 2011, , .		7
69	Automatic mapping of moisture affectation in exposed concrete structures by fusing different wavelength remote sensors. <i>Structural Control and Health Monitoring</i> , 2016, 23, 923-937.	1.9	7
70	Two-dimensional models of variable inertia from LiDAR data for structural analysis of timber trusses. <i>Construction and Building Materials</i> , 2020, 231, 117072.	3.2	7
71	Geometric Evaluation of Road Signs Using Radiometric Information from Laser Scanning Data. , 2011, , .		6
72	AUTOMATIC CREATION OF STRUCTURAL MODELS FROM POINT CLOUD DATA: THE CASE OF MASONRY STRUCTURES. <i>ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences</i> , 0, II-3/W5, 3-9.	0.0	6

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73	AUTOMATIC ROAD SIGN INVENTORY USING MOBILE MAPPING SYSTEMS. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLI-B3, 717-723.	0.2	6
74	Masonry arch bridges evaluation by means of GPR. , 2010, , .		5
75	A Refrigerated Web Camera for Photogrammetric Video Measurement inside Biomass Boilers and Combustion Analysis. Sensors, 2011, 11, 1246-1260.	2.1	5
76	Automatic Parametrization and Shadow Analysis of Roofs in Urban Areas from ALS Point Clouds with Solar Energy Purposes. ISPRS International Journal of Geo-Information, 2018, 7, 301.	1.4	5
77	Verification of image orthorectification techniques for low-cost geometric inspection of masonry arch bridges. Optical Engineering, 2012, 51, 073606.	0.5	4
78	Automatic Parametrization of Urban Areas Using ALS Data: The Case Study of Santiago de Compostela. ISPRS International Journal of Geo-Information, 2018, 7, 439.	1.4	4
79	New discretization method applied to NBV problem: Semiocree. PLoS ONE, 2018, 13, e0206259.	1.1	3
80	First results of a methodology to obtain a 1D variable geometry model for the structural analysis of corroded steel beams from the point cloud. Structures, 2021, 33, 3257-3268.	1.7	3
81	APPLICATION OF MLS DATA TO THE ASSESSMENT OF SAFETY-RELATED FEATURES IN THE SURROUNDING AREA OF AUTOMATICALLY DETECTED PEDESTRIAN CROSSINGS. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLII-2, 1067-1074.	0.2	3
82	FROM GEOMETRY TO DIAGNOSIS: EXPERIENCES OF GEOMATICS IN STRUCTURAL ENGINEERING. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XXXIX-B5, 291-296.	0.2	3
83	Metrological evaluation of vessel-based mobile lidar for survey of coastal structures. International Journal of Remote Sensing, 2015, 36, 2622-2633.	1.3	2
84	Combined approach of GPR and thermographic data through FDTD simulation to analyze masonry bridges: The evaluation of construction materials in a restored masonry arch bridge. , 2015, , .		2
85	Wave Run-Up Monitoring on Rubble-Mound Breakwaters Using a Photogrammetric Methodology. Journal of Performance of Constructed Facilities, 2016, 30, 04015075.	1.0	2
86	Laser Scanning for the Evaluation of Historic Structures. Advances in Civil and Industrial Engineering Book Series, 2015, , 765-793.	0.2	2
87	A CityGML extension for traffic-sign objects that guides the automatic processing of data collected using Mobile Mapping technology. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XL-1, 415-420.	0.2	2
88	SIMPLE APPROACHES TO IMPROVE THE AUTOMATIC INVENTORY OF ZEBRA CROSSING FROM MLS DATA. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XL-3/W3, 103-108.	0.2	2
89	AUTOMATIC THICKNESS AND VOLUME ESTIMATION OF SPRAYED CONCRETE ON ANCHORED RETAINING WALLS FROM TERRESTRIAL LIDAR DATA. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLI-B5, 521-526.	0.2	2
90	DEFORMATION MONITORING OF MOTORWAY UNDERPASSES USING LASER SCANNING DATA. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XXXIX-B5, 235-238.	0.2	2

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91	Performance testing of 3D point cloud software. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, II-5/W2, 307-312.	0.0	2
92	Assessment of a Medieval Arch Bridge Resorting to Non-destructive Techniques and Numerical Tools. Structural Integrity, 2020, , 464-472.	0.8	2
93	A multidisciplinary non-destructive approach to analyze moisture in historic masonry structures: Integration of both field and synthetic GPR data generated from photogrammetric and infrared imaging. , 2012, , .		1
94	AUTOMATED CALIBRATION OF FEM MODELS USING LIDAR POINT CLOUDS. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLII-2, 969-974.	0.2	1
95	Parameterization of Structural Faults in Large Historical Constructions for Further Structural Modelling Thanks to Laser Scanning Technology and Computer Vision Algorithms. RILEM Bookseries, 2019, , 351-359.	0.2	0
96	Reliability-based structural assessment of a historical steel railway bridge. , 2021, , .		0
97	NUMERICAL ANALYSIS OF MASONRY STRUCTURES, TAKING INTO ACCOUNT MEASURED GEOMETRIC AND MATERIAL DATA. , 2015, , .		0
98	Laser Scanning for the Evaluation of Historic Structures. , 2016, , 807-835.		0
99	AN AUTOMATIC METHOD FOR GEOMETRIC SEGMENTATION OF MASONRY ARCH BRIDGES FOR STRUCTURAL ENGINEERING PURPOSES. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLI-B5, 719-724.	0.2	0
100	Corbelled dome buildings of the GerÃs-XurÃs transborder region: methodologies and characterization. Conservar Patrimonio, 0, 28, 39-48.	0.5	0
101	Uncertainty sources in the structural assessment of masonry arch bridges: a case study of a single-span stone arch bridge. IABSE Symposium Report, 2019, , .	0.0	0
102	PREFACE â€“ ISPRS WORKSHOP LASER SCANNING 2019. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, IV-2/W5, 313-315.	0.0	0
103	PREFACE â€“ ISPRS WORKSHOP LASER SCANNING 2019. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLII-2/W13, 915-917.	0.2	0
104	HBIM Application to Historical Steel Structures: the Case Study of Lapela Bridge. , 0, , .		0
105	Limit Analysis of Loaded Out-of-Plane Rubble Masonry : A Case Study in Portugal. , 0, , .		0
106	Integrated Modeling and Evaluation of Masonry Bridges using Terrestrial Photogrammetry. , 0, , .		0
107	Assessment of Masonry Arch Behaviour through Photogrammetric Models and the Finite Element Method. , 0, , .		0