

# Belen Riveiro

## List of Publications by Citations

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92  
papers

1,918  
citations

26  
h-index

40  
g-index

108  
ext. papers

2,275  
ext. citations

4.5  
avg, IF

5.21  
L-index

#	Paper	IF	Citations
92	Metrological evaluation of Microsoft Kinect and Asus Xtion sensors. <i>Measurement: Journal of the International Measurement Confederation</i> , <b>2013</b> , 46, 1800-1806	4.6	112
91	Terrestrial laser scanning and limit analysis of masonry arch bridges. <i>Construction and Building Materials</i> , <b>2011</b> , 25, 1726-1735	6.7	101
90	Terrestrial laser scanning intensity data applied to damage detection for historical buildings. <i>Journal of Archaeological Science</i> , <b>2010</b> , 37, 3037-3047	2.9	100
89	Automated processing of large point clouds for structural health monitoring of masonry arch bridges. <i>Automation in Construction</i> , <b>2016</b> , 72, 258-268	9.6	83
88	Photogrammetric 3D modelling and mechanical analysis of masonry arches: An approach based on a discontinuous model of voussoirs. <i>Automation in Construction</i> , <b>2011</b> , 20, 380-388	9.6	68
87	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> , <b>2014</b> , 70, 118-129	6.7	62
86	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> , <b>2017</b> , 148, 621-638	4.7	61
85	Traffic sign detection in MLS acquired point clouds for geometric and image-based semantic inventory. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , <b>2016</b> , 114, 92-101	11.8	57
84	Accuracy verification of the Lynx Mobile Mapper system. <i>Optics and Laser Technology</i> , <b>2013</b> , 45, 578-586	4.2	56
83	Automatic detection of zebra crossings from mobile LiDAR data. <i>Optics and Laser Technology</i> , <b>2015</b> , 70, 63-70	4.2	54
82	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> , <b>2013</b> , 46, 784-794	4.6	51
81	Segmentation and classification of road markings using MLS data. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , <b>2017</b> , 123, 94-103	11.8	49
80	Multidisciplinary approach to the assessment of historic structures based on the case of a masonry bridge in Galicia (Spain). <i>Computers and Structures</i> , <b>2011</b> , 89, 1615-1627	4.5	47
79	Automatic Inventory of Road Cross-Sections from Mobile Laser Scanning System. <i>Computer-Aided Civil and Infrastructure Engineering</i> , <b>2017</b> , 32, 3-17	8.4	42
78	Modelling and strength evaluation of masonry bridges using terrestrial photogrammetry and finite elements. <i>Advances in Engineering Software</i> , <b>2016</b> , 101, 136-148	3.6	40
77	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> , <b>2016</b> , 9, 295-303	4.7	39
76	Automatic Morphologic Analysis of Quasi-Periodic Masonry Walls from LiDAR. <i>Computer-Aided Civil and Infrastructure Engineering</i> , <b>2016</b> , 31, 305-319	8.4	39

75	Standard artifact for the geometric verification of terrestrial laser scanning systems. <i>Optics and Laser Technology</i> , <b>2011</b> , 43, 1249-1256	4.2	39
74	An innovative method for remote measurement of minimum vertical underclearance in routine bridge inspection. <i>Automation in Construction</i> , <b>2012</b> , 25, 34-40	9.6	35
73	Non-destructive methodologies in the assessment of the masonry arch bridge of Traba, Spain. <i>Engineering Failure Analysis</i> , <b>2011</b> , 18, 828-835	3.2	34
72	Automatic 3D modelling of metal frame connections from LiDAR data for structural engineering purposes. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , <b>2014</b> , 96, 47-56	11.8	32
71	Review of Laser Scanning Technologies and Their Applications for Road and Railway Infrastructure Monitoring. <i>Infrastructures</i> , <b>2019</b> , 4, 58	2.6	31
70	Photogrammetry and laser scanner technology applied to length measurements in car testing laboratories. <i>Measurement: Journal of the International Measurement Confederation</i> , <b>2012</b> , 45, 354-363	4.6	30
69	A novel approach to evaluate masonry arch stability on the basis of limit analysis theory and non-destructive geometric characterization. <i>Automation in Construction</i> , <b>2013</b> , 31, 140-148	9.6	30
68	Exploiting synergies of mobile mapping sensors and deep learning for traffic sign recognition systems. <i>Expert Systems With Applications</i> , <b>2017</b> , 89, 286-295	7.8	30
67	Algorithm for beam deformation modeling from LiDAR data. <i>Measurement: Journal of the International Measurement Confederation</i> , <b>2015</b> , 76, 20-31	4.6	30
66	Automatic segmentation of road overpasses and detection of mortar efflorescence using mobile LiDAR data. <i>Optics and Laser Technology</i> , <b>2013</b> , 54, 353-361	4.2	26
65	Automated detection and decomposition of railway tunnels from Mobile Laser Scanning Datasets. <i>Automation in Construction</i> , <b>2018</b> , 96, 171-179	9.6	26
64	A novel methodology for the structural assessment of stone arches based on geometric data by integration of photogrammetry and ground-penetrating radar. <i>Engineering Structures</i> , <b>2012</b> , 35, 296-306	4.7	25
63	Characterization of the response of quasi-periodic masonry: Geometrical investigation, homogenization and application to the Guimarães castle, Portugal. <i>Engineering Structures</i> , <b>2013</b> , 56, 621-641	4.7	24
62	Automatic extraction of road features in urban environments using dense ALS data. <i>International Journal of Applied Earth Observation and Geoinformation</i> , <b>2018</b> , 64, 226-236	7.3	23
61	Exploitation of Geometric Data provided by Laser Scanning to Create FEM Structural Models of Bridges. <i>Journal of Performance of Constructed Facilities</i> , <b>2016</b> , 30, 04015053	2	22
60	Inverse analysis of masonry arch bridges for damaged condition investigation: Application on Kakodiki bridge. <i>Engineering Structures</i> , <b>2016</b> , 127, 388-401	4.7	21
59	Ancient Stone Bridge Surveying by Ground-Penetrating Radar and Numerical Modeling Methods. <i>Journal of Bridge Engineering</i> , <b>2014</b> , 19, 110-119	2.7	20
58	Detection of structural faults in piers of masonry arch bridges through automated processing of laser scanning data. <i>Structural Control and Health Monitoring</i> , <b>2018</b> , 25, e2126	4.5	17

57	Safety assessment on pedestrian crossing environments using MLS data. <i>Accident Analysis and Prevention</i> , <b>2018</b> , 111, 328-337	6.1	17
56	Non-destructive testing for the analysis of moisture in the masonry arch bridge of Lubians (Spain). <i>Structural Control and Health Monitoring</i> , <b>2013</b> , 20, n/a-n/a	4.5	17
55	Performance testing of LiDAR exploitation software. <i>Computers and Geosciences</i> , <b>2013</b> , 54, 122-129	4.5	17
54	Verification artifact for photogrammetric measurement systems. <i>Optical Engineering</i> , <b>2011</b> , 50, 073603	1.1	16
53	Automatic filtering of vehicles from mobile LiDAR datasets. <i>Measurement: Journal of the International Measurement Confederation</i> , <b>2014</b> , 53, 215-223	4.6	15
52	3D Point Cloud to BIM: Semi-Automated Framework to Define IFC Alignment Entities from MLS-Acquired LiDAR Data of Highway Roads. <i>Remote Sensing</i> , <b>2020</b> , 12, 2301	5	15
51	Experimental forensic scenes for the characterization of ground-penetrating radar wave response. <i>Forensic Science International</i> , <b>2012</b> , 220, 50-8	2.6	13
50	Experimental and numerical approaches for structural assessment in new footbridge designs (SFRSCC/FPR hybrid structure). <i>Composite Structures</i> , <b>2015</b> , 134, 95-105	5.3	11
49	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> , <b>2016</b> , 49, 4265-4278	3.4	11
48	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> , <b>2016</b> , 23, 1032-1046	4.5	11
47	Procedure to evaluate the accuracy of laser-scanning systems using a linear precision electro-mechanical actuator. <i>IET Science, Measurement and Technology</i> , <b>2012</b> , 6, 6	1.5	11
46	Structural evaluation of historic masonry arch bridges based on first hinge formation. <i>Construction and Building Materials</i> , <b>2013</b> , 47, 569-578	6.7	11
45	Automated processing of dense points clouds to automatically determine deformations in highly irregular timber structures. <i>Construction and Building Materials</i> , <b>2017</b> , 146, 393-402	6.7	11
44	A Methodology for the Inventory of Historical Infrastructures: Documentation, Current State, and Influencing Factors. <i>International Journal of Architectural Heritage</i> , <b>2011</b> , 5, 629-646	2.1	9
43	Laser Scanning Technology: Fundamentals, Principles and Applications in Infrastructure. <i>Structures and Infrastructures Series</i> , <b>2016</b> , 7-33		9
42	Analytical T-stub model for the analysis of clamps in structural metal joints. <i>Journal of Constructional Steel Research</i> , <b>2017</b> , 130, 138-147	3.8	8
41	Successful Applications of Geotechnologies for the Evaluation of Road Infrastructures. <i>Remote Sensing</i> , <b>2014</b> , 6, 7800-7818	5	8
40	ORTHOIMAGE-BASED DOCUMENTATION OF ARCHAEOLOGICAL STRUCTURES: THE CASE OF A MEDIAEVAL WALL IN PONTEVEDRA, SPAIN. <i>Archaeometry</i> , <b>2011</b> , 53, 858-872	1.6	8

39	Application of close range photogrammetry to deck measurement in recreational ships. <i>Sensors</i> , <b>2009</b> , 9, 6991-7002	3.8	8
38	POINTNET FOR THE AUTOMATIC CLASSIFICATION OF AERIAL POINT CLOUDS. <i>ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences</i> , IV-2/W5, 445-452		8
37	A case study of measurements of deformations due to different loads in pieces less than 1 m from lidar data. <i>Measurement: Journal of the International Measurement Confederation</i> , <b>2020</b> , 151, 107196	4.6	8
36	Three-dimensional discrete element modelling of rubble masonry structures from dense point clouds. <i>Automation in Construction</i> , <b>2020</b> , 119, 103365	9.6	8
35	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> , <b>2021</b> , 126, 103684	9.6	8
34	The Integration of Geotechnologies in the Evaluation of a Wine Cellar Structure through the Finite Element Method. <i>Remote Sensing</i> , <b>2014</b> , 6, 11107-11126	5	7
33	AUTOMATIC ROAD SIGN INVENTORY USING MOBILE MAPPING SYSTEMS. <i>International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives</i> , XLI-B3, 717-723	2.5	6
32	Scan-to-BIM for the infrastructure domain: Generation of IFC-compliant models of road infrastructure assets and semantics using 3D point cloud data. <i>Automation in Construction</i> , <b>2021</b> , 127, 103703	9.6	6
31	Automatic mapping of moisture affectation in exposed concrete structures by fusing different wavelength remote sensors. <i>Structural Control and Health Monitoring</i> , <b>2016</b> , 23, 923-937	4.5	6
30	A refrigerated web camera for photogrammetric video measurement inside biomass boilers and combustion analysis. <i>Sensors</i> , <b>2011</b> , 11, 1246-60	3.8	5
29	Two-dimensional models of variable inertia from LiDAR data for structural analysis of timber trusses. <i>Construction and Building Materials</i> , <b>2020</b> , 231, 117072	6.7	5
28	Probabilistic-based structural assessment of a historic stone arch bridge. <i>Structure and Infrastructure Engineering</i> , <b>2021</b> , 17, 379-391	2.9	5
27	Masonry arch bridges evaluation by means of GPR <b>2010</b> ,		4
26	GPR analysis of a masonry arch for structural assessment <b>2011</b> ,		4
25	Verification of image orthorectification techniques for low-cost geometric inspection of masonry arch bridges. <i>Optical Engineering</i> , <b>2012</b> , 51, 073606	1.1	4
24	Geometric Evaluation of Road Signs Using Radiometric Information from Laser Scanning Data <b>2011</b> ,		4
23	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> , II-3/W5, 3-9		4
22	Comparison of heuristic and deep learning-based methods for ground classification from aerial point clouds. <i>International Journal of Digital Earth</i> , <b>2020</b> , 13, 1115-1134	3.9	4

21	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> ,V-2-2020, 281-288		3
20	Automatic Point Cloud Semantic Segmentation of Complex Railway Environments. <i>Remote Sensing</i> , <b>2021</b> , 13, 2332	5	3
19	Automatic Parametrization of Urban Areas Using ALS Data: The Case Study of Santiago de Compostela. <i>ISPRS International Journal of Geo-Information</i> , <b>2018</b> , 7, 439	2.9	3
18	Automatic Parametrization and Shadow Analysis of Roofs in Urban Areas from ALS Point Clouds with Solar Energy Purposes. <i>ISPRS International Journal of Geo-Information</i> , <b>2018</b> , 7, 301	2.9	3
17	Metrological evaluation of vessel-based mobile lidar for survey of coastal structures. <i>International Journal of Remote Sensing</i> , <b>2015</b> , 36, 2622-2633	3.1	2
16	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 <b>2015</b> ,		2
15	Wave Run-Up Monitoring on Rubble-Mound Breakwaters Using a Photogrammetric Methodology. <i>Journal of Performance of Constructed Facilities</i> , <b>2016</b> , 30, 04015075	2	2
14	Laser Scanning for the Evaluation of Historic Structures. <i>Advances in Civil and Industrial Engineering Book Series</i> , <b>2015</b> , 765-793	0.5	2
13	APPLICATION OF MLS DATA TO THE ASSESSMENT OF SAFETY-RELATED FEATURES IN THE SURROUNDING AREA OF AUTOMATICALLY DETECTED PEDESTRIAN CROSSINGS. <i>International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives</i> XII-2, 1067-1074	2.5	2
12	A CityGML extension for traffic-sign objects that guides the automatic processing of data collected using Mobile Mapping technology. <i>International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives</i> ,XL-1, 415-420	2.5	2
11	SIMPLE APPROACHES TO IMPROVE THE AUTOMATIC INVENTORY OF ZEBRA CROSSING FROM MLS DATA. <i>International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives</i> ,XL-3/W3, 103-108	2.5	2
10	FROM GEOMETRY TO DIAGNOSIS: EXPERIENCES OF GEOMATICS IN STRUCTURAL ENGINEERING. <i>International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives</i> ,XXXIX-B5, 291-296	2.5	2
9	Performance testing of 3D point cloud software. <i>ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences</i> ,II-5/W2, 307-312		2
8	New discretization method applied to NBV problem: Semiocree. <i>PLoS ONE</i> , <b>2018</b> , 13, e0206259	3.7	2
7	First results of a methodology to obtain a 1D variable geometry model for the structural analysis of corroded steel beams from the point cloud. <i>Structures</i> , <b>2021</b> , 33, 3257-3268	3.4	2
6	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 <b>2012</b> ,		1
5	Assessment of a Medieval Arch Bridge Resorting to Non-destructive Techniques and Numerical Tools. <i>Structural Integrity</i> , <b>2020</b> , 464-472	0.2	1
4	Analysis of steel connections with girder clamps according to the bolts preload. <i>Journal of Constructional Steel Research</i> , <b>2020</b> , 168, 105866	3.8	0

- 3 Structural health control of historical steel structures using HBIM. *Automation in Construction*, **2022**, 140, 104308 9.6 0
- 2 Laser Scanning for the Evaluation of Historic Structures **2016**, 807-835
- 1 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 0.5