

# Nuno Gracias

## List of Publications by Year in descending order

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Version: 2024-02-01

92  
papers

2,418  
citations

218592

26  
h-index

254106

43  
g-index

97  
all docs

97  
docs citations

97  
times ranked

1985  
citing authors

#	ARTICLE	IF	CITATIONS
1	Underwater Video Mosaics as Visual Navigation Maps. Computer Vision and Image Understanding, 2000, 79, 66-91.	3.0	142
2	Development and application of a video-mosaic survey technology to document the status of coral reef communities. Environmental Monitoring and Assessment, 2007, 125, 59-73.	1.3	124
3	Mosaic-based navigation for autonomous underwater vehicles. IEEE Journal of Oceanic Engineering, 2003, 28, 609-624.	2.1	117
4	Fast image blending using watersheds and graph cuts. Image and Vision Computing, 2009, 27, 597-607.	2.7	113
5	Tectonic structure, evolution, and the nature of oceanic core complexes and their detachment fault zones (13°20'N and 13°30'N, Mid Atlantic Ridge). Geochemistry, Geophysics, Geosystems, 2017, 18, 1451-1482.	1.0	94
6	Image-Based Coral Reef Classification and Thematic Mapping. Remote Sensing, 2013, 5, 1809-1841.	1.8	89
7	Marked annual coral bleaching resilience of an inshore patch reef in the Florida Keys: A nugget of hope, aberrance, or last man standing?. Coral Reefs, 2018, 37, 533-547.	0.9	85
8	Reconfigurable AUV for intervention missions: a case study on underwater object recovery. Intelligent Service Robotics, 2012, 5, 19-31.	1.6	82
9	Automatic segmentation of fish using deep learning with application to fish size measurement. ICES Journal of Marine Science, 2020, 77, 1354-1366.	1.2	81
10	An integrated view of the methane system in the pockmarks at Vestnesa Ridge, 79°N. Marine Geology, 2017, 390, 282-300.	0.9	74
11	Efficient three-dimensional scene modeling and mosaicing. Journal of Field Robotics, 2009, 26, 759-788.	3.2	69
12	Globally aligned photomosaic of the Lucky Strike hydrothermal vent field (Mid-Atlantic Ridge,) Tj ETQqO 0 0 rgBT /Overlock 10 Tf 50 30 Geophysics, Geosystems, 2008, 9, .	1.0	56
13	Large-Area Photo-Mosaics Using Global Alignment and Navigation Data. , 2007, , .		54
14	Autonomous Underwater Navigation and Optical Mapping in Unknown Natural Environments. Sensors, 2016, 16, 1174.	2.1	50
15	A Novel Blending Technique for Underwater Gigamosaicing. IEEE Journal of Oceanic Engineering, 2012, 37, 626-644.	2.1	49
16	Quantifying diffuse and discrete venting at the Tour Eiffel vent site, Lucky Strike hydrothermal field. Geochemistry, Geophysics, Geosystems, 2012, 13, .	1.0	47
17	Mapping the Moon: Using a lightweight AUV to survey the site of the 17th century ship "La Lune". , 2013, , .		42
18	Underwater mosaicing and trajectory reconstruction using global alignment. , 0, , .		41

#	ARTICLE	IF	CITATIONS
19	A new global alignment approach for underwater optical mapping. <i>Ocean Engineering</i> , 2011, 38, 1207-1219.	1.9	38
20	Documenting hurricane impacts on coral reefs using two-dimensional video-mosaic technology. <i>Marine Ecology</i> , 2007, 28, 254-258.	0.4	37
21	Fast topology estimation for image mosaicing using adaptive information thresholding. <i>Robotics and Autonomous Systems</i> , 2013, 61, 125-136.	3.0	35
22	Detection of interest points in turbid underwater images. , 2011, , .		34
23	Close-Range Tracking of Underwater Vehicles Using Light Beacons. <i>Sensors</i> , 2016, 16, 429.	2.1	33
24	A motion compensated filtering approach to remove sunlight flicker in shallow water images. , 2008, , .		32
25	Damage and recovery assessment of vessel grounding injuries on coral reef habitats by use of georeferenced landscape video mosaics. <i>Limnology and Oceanography: Methods</i> , 2010, 8, 88-97.	1.0	32
26	Hydrothermal activity along the slow-spreading Lucky Strike ridge segment (Mid-Atlantic Ridge): Distribution, heatflux, and geological controls. <i>Earth and Planetary Science Letters</i> , 2015, 431, 173-185.	1.8	32
27	Omnidirectional Underwater Camera Design and Calibration. <i>Sensors</i> , 2015, 15, 6033-6065.	2.1	29
28	Underwater Multi-Vehicle Trajectory Alignment and Mapping Using Acoustic and Optical Constraints. <i>Sensors</i> , 2016, 16, 387.	2.1	29
29	Efficient image mosaicing for multi-robot visual underwater mapping. <i>Pattern Recognition Letters</i> , 2014, 46, 20-26.	2.6	28
30	Multisensor online 3D view planning for autonomous underwater exploration. <i>Journal of Field Robotics</i> , 2020, 37, 1123-1147.	3.2	28
31	Multipurpose autonomous underwater intervention: A systems integration perspective. , 2012, , .		27
32	Autonomous homing and docking for AUVs using Range-Only Localization and Light Beacons. <i>IFAC-PapersOnLine</i> , 2016, 49, 54-60.	0.5	27
33	Automatic scale estimation of structure from motion based 3D models using laser scalers in underwater scenarios. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2020, 159, 13-25.	4.9	24
34	Needs and Gaps in Optical Underwater Technologies and Methods for the Investigation of Marine Animal Forest 3D-Structural Complexity. <i>Frontiers in Marine Science</i> , 2021, 8, .	1.2	24
35	Augmented stateâ€“extended Kalman filter combined framework for topology estimation in largeâ€“area underwater mapping. <i>Journal of Field Robotics</i> , 2010, 27, 656-674.	3.2	22
36	Towards Detecting Changes in Underwater Image Sequences. , 2008, , .		21

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37	Vision-based localization and mapping system for AUV intervention. , 2013, , .		21
38	First direct observation of coseismic slip and seafloor rupture along a submarine normal fault and implications for fault slip history. Earth and Planetary Science Letters, 2016, 450, 96-107.	1.8	21
39	First attempts towards the restoration of gorgonian populations on the Mediterranean continental shelf. Aquatic Conservation: Marine and Freshwater Ecosystems, 2019, 29, 1278-1284.	0.9	20
40	Linear global mosaics for underwater surveying. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 78-83.	0.4	18
41	The European Project MORPH: Distributed UUV Systems for Multimodal, 3D Underwater Surveys. Marine Technology Society Journal, 2016, 50, 26-41.	0.3	18
42	A New Global Alignment Method for Feature Based Image Mosaicing. Lecture Notes in Computer Science, 2008, , 257-266.	1.0	18
43	Trajectory reconstruction with uncertainty estimation using mosaic registration. Robotics and Autonomous Systems, 2001, 35, 163-177.	3.0	17
44	Vertical-To-Lateral Transitions Among Cretaceous Carbonate Facies--A Means To 3-D Framework Construction Via Markov Analysis. Journal of Sedimentary Research, 2012, 82, 232-243.	0.8	17
45	Automatic mosaic creation of the ocean floor. , 0, , .		16
46	Semantic SLAM for an AUV using object recognition from point clouds. IFAC-PapersOnLine, 2018, 51, 360-365.	0.5	16
47	Underwater Mosaic Creation using Video sequences from Different Altitudes. , 0, , .		15
48	Underwater Object Recognition Using Point-Features, Bayesian Estimation and Semantic Information. Sensors, 2021, 21, 1807.	2.1	14
49	Landscape video mosaic from a mesophotic coral reef. Coral Reefs, 2010, 29, 253-253.	0.9	12
50	A noninvasive method for measuring the velocity of diffuse hydrothermal flow by tracking moving refractive index anomalies. Geochemistry, Geophysics, Geosystems, 2010, 11, .	1.0	12
51	Scale Accuracy Evaluation of Image-Based 3D Reconstruction Strategies Using Laser Photogrammetry. Remote Sensing, 2019, 11, 2093.	1.8	12
52	Omnidirectional Multicamera Video Stitching Using Depth Maps. IEEE Journal of Oceanic Engineering, 2020, 45, 1337-1352.	2.1	12
53	Automated classification and thematic mapping of bacterial mats in the North Sea. , 2013, , .		11
54	Meadow fragmentation influences Posidonia oceanica density at the edge of nearby gaps. Estuarine, Coastal and Shelf Science, 2021, 249, 107106.	0.9	11

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55	Pose Estimation for Underwater Vehicles using Light Beaconsâ~... IFAC-PapersOnLine, 2015, 48, 70-75.	0.5	10
56	Creating 360&#x00B0; underwater virtual tours using an omnidirectional camera integrated in an AUV. , 2015, , .		10
57	Fitness function design for genetic algorithms in cost evaluation based problems. , 0, , .		9
58	Results on underwater mosaic-based navigation. , 0, , .		8
59	Mission-time 3D reconstruction with quality estimation. , 2017, , .		8
60	3D Object Recognition Based on Point Clouds in Underwater Environment with Global Descriptors: A Survey. Sensors, 2019, 19, 4451.	2.1	8
61	Fragmentation in Seagrass Canopies Can Alter Hydrodynamics and Sediment Deposition Rates. Water (Switzerland), 2020, 12, 3473.	1.2	8
62	Involving fishers in scaling up the restoration of cold-water coral gardens on the Mediterranean continental shelf. Biological Conservation, 2021, 262, 109301.	1.9	8
63	Automated Detection of Underwater Military Munitions Using Fusion of 2D and 2.5D Features From Optical Imagery. Marine Technology Society Journal, 2014, 48, 61-71.	0.3	7
64	Global Alignment of a Multiple-Robot Photomosaic using Opto-Acoustic Constraints. IFAC-PapersOnLine, 2015, 48, 20-25.	0.5	7
65	Fast Underwater Image Mosaicing through Submapping. Journal of Intelligent and Robotic Systems: Theory and Applications, 2017, 85, 167-187.	2.0	7
66	Geostatistics for Context-Aware Image Classification. Lecture Notes in Computer Science, 2015, , 228-239.	1.0	7
67	Single cluster PHD SLAM: Application to autonomous underwater vehicles using stereo vision. , 2013, , .		6
68	Bathymetry-based SLAM with difference of normals point-cloud subsampling and probabilistic ICP registration. , 2013, , .		6
69	LOON-DOCK: AUV homing and docking for high-bandwidth data transmission. , 2017, , .		6
70	Object Recognition and Pose Estimation using Laser scans For Advanced Underwater Manipulation. , 2018, , .		6
71	Shallow-water hydrothermalism at Milos (Greece): Nature, distribution, heat fluxes and impact on ecosystems. Marine Geology, 2021, 438, 106521.	0.9	6
72	Real-time fish detection in trawl nets. , 2017, , .		5

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73	Immersive Touring for Marine Archaeology. Application of a New Compact Omnidirectional Camera to Mapping the Gnalí shipwreck with an AUV. <i>Advances in Intelligent Systems and Computing</i> , 2018, , 183-195.	0.5	5
74	Graph theory approach for match reduction in image mosaicing. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2014, 31, 773.	0.8	4
75	Online underwater optical mapping for trajectories with gaps. <i>Intelligent Service Robotics</i> , 2016, 9, 217-229.	1.6	4
76	Performing submarine field survey without scuba gear using GIS-like mapping in a Virtual Reality environment. , 2019, , .		4
77	Match Selection in Batch Mosaicing Using Mutual Information. <i>Lecture Notes in Computer Science</i> , 2009, , 104-111.	1.0	4
78	Hyperspectral 3D Mapping of Underwater Environments. , 2021, , .		4
79	Collision Detection and Avoidance for Underwater Vehicles Using Omnidirectional Vision. <i>Sensors</i> , 2022, 22, 5354.	2.1	4
80	Optical methods to monitor temporal changes at the seafloor: The Lucky Strike deep-sea hydrothermal vent field (Mid-Atlantic Ridge). , 2013, , .		3
81	Semantic Mapping for Autonomous Subsea Intervention. <i>Sensors</i> , 2021, 21, 6740.	2.1	2
82	Allowing untrained scientists to safely pilot ROVs: Early collision detection and avoidance using omnidirectional vision. , 2020, , .		2
83	Efficient image mosaicing for optical underwater mapping. , 2012, , .		1
84	Littoral seafloor sensing and characterization using marine electromagnetics, optical imagery, and remotely and autonomously operated platforms. , 2015, , .		1
85	Adaptive contour estimation with genetic algorithms. , 0, , .		0
86	Project-based learning as a motivating tool to teach computer vision. , 2012, , .		0
87	Match elimination using cycle basis in underwater optical mapping. , 2013, , .		0
88	Towards automatic identification of mismatched image pairs through loop constraints. <i>Proceedings of SPIE</i> , 2014, , .	0.8	0
89	Improved supervised classification of underwater military munitions using height features derived from optical imagery. , 2015, , .		0
90	Vision for the Marine Environment. , 2018, , 1-9.		0

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91	Mismatched image identification using histogram of loop closure error for feature-based optical mapping. International Journal of Intelligent Robotics and Applications, 2019, 3, 196-206.	1.6	0
92	Combined use of a frame and a linear pushbroom camera for deep-sea 3D hyperspectral mapping. , 2021, , .		0