Pere Ridao Rodriguez

List of Publications by Year in Descending Order

152	2,480	27	42
papers	citations	h-index	g-index

167	3,320	3	5.23
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
152	Underwater 3D Scanner to Counteract Refraction: Calibration and Experimental Results. *IEEE/ASME Transactions on Mechatronics*, **2022**, 1-9	5.5	3
151	Linewise Non-Rigid Point Cloud Registration. *IEEE Robotics and Automation Letters*, **2022**, 1-1	4.2	
150	Model-Validation and Implementation of a Path-Following Algorithm in an Autonomous Underwater Vehicle. *Applied Sciences (Switzerland)*, **2021**, 11, 11891	2.6	
149	Underwater Object Recognition Using Point-Features, Bayesian Estimation and Semantic Information. *Sensors*, **2021**, 21,	3.8	3
148	Docking of Non-Holonomic AUVs in Presence of Ocean Currents: A Comparative Survey. *IEEE Access*, **2021**, 9, 86607-86631	3.5	1
147	TWINBOT: Autonomous Underwater Cooperative Transportation. *IEEE Access*, **2021**, 9, 37668-37684	3.5	5
146	Underwater 3D scanner model using a biaxial MEMS mirror. *IEEE Access*, **2021**, 1-1	3.5	5
145	Extrinsic Visual-Inertial Calibration for Motion Distortion Correction of Underwater 3D Scans. *IEEE Access*, **2021**, 9, 93384-93398	3.5	2
144	ATLANTIS - The Atlantic Testing Platform for Maritime Robotics **2021**,		4
143	Multirepresentation, Multiheuristic A* search-based motion planning for a free-floating underwater vehicle-manipulator system in unknown environment. *Journal of Field Robotics*, **2020**, 37, 925-950	6.7	6
142	Sparus II AUV as a Sensor Suite for Underwater Archaeology: Falconera Cave Experiments **2020**,		1
141	IMPACT: a strategic partnership for sustainable development in marine systems and robotics **2020**,		1
140	Practical formulation of obstacle avoidance in the Task-Priority framework for use in robotic inspection and intervention scenarios. *Robotics and Autonomous Systems*, **2020**, 124, 103396	3.5	4
139	Implementation of Nonlinear Adaptive U-Model Control Synthesis Using a Robot Operating System for an Unmanned Underwater Vehicle. *IEEE Access*, **2020**, 8, 205685-205695	3.5	2
138	Omnidirectional Multicamera Video Stitching Using Depth Maps. *IEEE Journal of Oceanic Engineering*, **2020**, 45, 1337-1352	3.3	3
137	Underwater Laser Scanner: Ray-Based Model and Calibration. *IEEE/ASME Transactions on Mechatronics*, **2019**, 24, 1986-1997	5.5	24
136	Inspection of an underwater structure using point-cloud SLAM with an AUV and a laser scanner. *Journal of Field Robotics*, **2019**, 36, 1333-1344	6.7	21

#	Reference	IF	Cites
135	3D Object Recognition Based on Point Clouds in Underwater Environment with Global Descriptors: A Survey. *Sensors*, **2019**, 19,	3.8	3
134	Multi-Representation Multi-Heuristic A* Motion Planning for a Dual-Arm Underwater Vehicle Manipulation System. *IFAC-PapersOnLine*, **2019**, 52, 205-210	0.7	3
133	State of the Art of Underwater Active Optical 3D Scanners. *Sensors*, **2019**, 19,	3.8	21
132	Autonomous Mapping of Underwater 3-D Structures: From View Planning To Execution. *IEEE Robotics and Automation Letters*, **2018**, 3, 1965-1971	4.2	16
131	Sparus II AUV A Hovering Vehicle for Seabed Inspection. *IEEE Journal of Oceanic Engineering*, **2018**, 43, 344-355	3.3	67
130	AUV homing and docking for remote operations. *Ocean Engineering*, **2018**, 154, 106-120	3.9	43
129	3D Laser Scanner for Underwater Manipulation. *Sensors*, **2018**, 18,	3.8	24
128	Motion planning survey for autonomous mobile manipulators underwater manipulator case study. *Robotics and Autonomous Systems*, **2018**, 107, 20-44	3.5	25
127	Immersive Touring for Marine Archaeology. Application of a New Compact Omnidirectional Camera to Mapping the Gnali Shipwreck with an AUV. *Advances in Intelligent Systems and Computing*, **2018**, 183-195	0.4	1
126	Object Recognition and Pose Estimation using Laser scans For Advanced Underwater Manipulation **2018**,		2
125	Semantic SLAM for an AUV using object recognition from point clouds. *IFAC-PapersOnLine*, **2018**, 51, 360-365	0.7	9
124	Motion Planning for an Underwater Mobile Manipulator by Exploiting Loose Coupling **2018**,		4
123	H-SLAM: Rao-Blackwellized Particle Filter SLAM Using Hilbert Maps. *Sensors*, **2018**, 18,	3.8	13
122	Challenges and future trends in marine robotics. *Annual Reviews in Control*, **2018**, 46, 350-368	10.3	61
121	. *IEEE Robotics and Automation Magazine*, **2017**, 24, 41-51	3.4	27
120	Wireless HROV control with compressed visual feedback over an acoustic link **2017**,		3
119	LOON-DOCK: AUV homing and docking for high-bandwidth data transmission **2017**,		3
118	Underwater 3D Laser Scanners: The Deformation of the Plane. *Lecture Notes in Control and Information Sciences*, **2017**, 73-88	0.5	12

117	Autonomous Seabed Inspection for Environmental Monitoring. *Advances in Intelligent Systems and Computing*, **2016**, 27-39	0.4	1
116	Underwater Multi-Vehicle Trajectory Alignment and Mapping Using Acoustic and Optical Constraints. *Sensors*, **2016**, 16,	3.8	24
115	Close-Range Tracking of Underwater Vehicles Using Light Beacons. *Sensors*, **2016**, 16, 429	3.8	18
114	Multibeam 3D Underwater SLAM with Probabilistic Registration. *Sensors*, **2016**, 16,	3.8	35
113	I-AUV Docking and Panel Intervention at Sea. *Sensors*, **2016**, 16,	3.8	18
112	Toward Autonomous Exploration in Confined Underwater Environments. *Journal of Field Robotics*, **2016**, 33, 994-1012	6.7	39
111	Online motion planning for underwater inspection **2016**,		4
110	The European Project MORPH: Distributed UUV Systems for Multimodal, 3D Underwater Surveys. *Marine Technology Society Journal*, **2016**, 50, 26-41	0.5	10
109	Autonomous homing and docking for AUVs using Range-Only Localization and Light Beacons. *IFAC-PapersOnLine*, **2016**, 49, 54-60	0.7	15
108	Sum of gaussian single beacon range-only localization for AUV homing. *Annual Reviews in Control*, **2016**, 42, 177-187	10.3	14
107	Omnidirectional underwater camera design and calibration. *Sensors*, **2015**, 15, 6033-65	3.8	21
106	Design and Construction of a Robot Hand Prototype for Underwater Applications. *IFAC-PapersOnLine*, **2015**, 48, 294-299	0.7	7
105	EU project MORPH: Current Status After 3 Years of Cooperation Under and Above Water. *IFAC-PapersOnLine*, **2015**, 48, 119-124	0.7	5
104	A comparison of homotopic path planning algorithms for robotic applications. *Robotics and Autonomous Systems*, **2015**, 64, 44-58	3.5	19
103	On-line 3D Path Planning for Close-proximity Surveying with AUVs?. *IFAC-PapersOnLine*, **2015**, 48, 50-55	0.7	6
102	The Kallisti Limnes, carbon dioxide-accumulating subsea pools. *Scientific Reports*, **2015**, 5, 12152	4.9	13
101	AUV Single Beacon Range-Only SLAM with a SOG Filter?. *IFAC-PapersOnLine*, **2015**, 48, 26-31	0.7	6
100	Coverage Path Planning with Real-time Replanning and Surface Reconstruction for Inspection of Three-dimensional Underwater Structures using Autonomous Underwater Vehicles. *Journal of Field Robotics*, **2015**, 32, 952-983	6.7	52

99	. *IEEE/ASME Transactions on Mechatronics*, **2015**, 20, 2583-2592	5.5	60
98	Global Alignment of a Multiple-Robot Photomosaic using Opto-Acoustic Constraints?. *IFAC-PapersOnLine*, **2015**, 48, 20-25	0.7	5
97	Autonomous underwater panel operation by GIRONA500 UVMS: A practical approach to autonomous underwater manipulation **2015**,		43
96	Intervention AUVs: The next challenge. *Annual Reviews in Control*, **2015**, 40, 227-241	10.3	47
95	Multi-beam terrain/object classification for underwater navigation correction **2015**,		2
94	Creating 360° underwater virtual tours using an omnidirectional camera integrated in an AUV **2015**,		4
93	Intervention Payload for Valve Turning with an AUV. *Lecture Notes in Computer Science*, **2015**, 877-884	0.9	1
92	Active Range-Only beacon localization for AUV homing **2014**,		16
91	Scan matching SLAM in underwater environments. *Autonomous Robots*, **2014**, 36, 181-198	3	40
90	Autonomous I-AUV Docking for Fixed-base Manipulation. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2014**, 47, 12160-12165		16
89	Intervention AUVs: The Next Challenge. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2014**, 47, 12146-12159		31
88	I-AUV docking and intervention in a subsea panel **2014**,		30
87	An Intervention-AUV learns how to perform an underwater valve turning **2014**,		6
86	Coverage path planning with realtime replanning for inspection of 3D underwater structures **2014**,		20
85	Realtime AUV Terrain Based Navigation with Octomap in a Natural Environment. *Advances in Intelligent Systems and Computing*, **2014**, 41-53	0.4	1
84	Probabilistic surface matching for bathymetry based SLAM **2013**,		6
83	The MORPH concept and its application in marine research **2013**,		10
82	Behavior Adaptation by Means of Reinforcement Learning **2013**, 287-328		2

81   Uncertainty-driven survey path planning for bathymetric mapping **2013**,   10

80   Vision-based localization and mapping system for AUV intervention **2013**,   17

79   Mapping the Moon: Using a lightweight AUV to survey the site of the 17th century ship ⬛a Lune⬛ **2013**,   28

78   Grasping for the Seabed: Developing a New Underwater Robot Arm for Shallow-Water Intervention. *IEEE Robotics and Automation Magazine*, **2013**, 20, 121-130   3.4   53

77   Complex structure profile estimation and following with the GIRONA500 AUV **2013**,   1

76   Bathymetry-based SLAM with difference of normals point-cloud subsampling and probabilistic ICP registration **2013**,   3

75   A Comparison of G2o Graph SLAM and EKF Pose Based SLAM with Bathymetry Grids. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2013**, 46, 286-291   2

74   Girona 500 AUV: From Survey to Intervention. *IEEE/ASME Transactions on Mechatronics*, **2012**, 17, 46-53   5.5   170

73   Reconfigurable AUV for intervention missions: a case study on underwater object recovery. *Intelligent Service Robotics*, **2012**, 5, 19-31   2.6   64

72   Inspecci⬛ visual subacu⬛ica mediante rob⬛ica submarina. *RIAI - Revista Iberoamericana De Automatica E Informatica Industrial*, **2012**, 9, 34-45   1.5   3

71   Multipurpose autonomous underwater intervention: A systems integration perspective **2012**,   24

70   COLA2: A Control Architecture for AUVs. *IEEE Journal of Oceanic Engineering*, **2012**, 37, 695-716   3.3   48

69   Delayed state information filter for USBL-Aided AUV navigation **2012**,   9

68   TRIDENT: Recent Improvements about Autonomous Underwater Intervention Missions. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2012**, 45, 355-360   13

67   Template Tracking and Visual Servoing for Alignment Tasks with Autonomous Underwater Vehicles. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2012**, 45, 256-261   2

66   AUV Based Multi-vehicle Collaboration: Salinity Studies in Mar Menor Coastal Lagoon. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2012**, 45, 287-292   4

65   Simultaneous Sonar Beacon Localization & AUV Navigation. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2012**, 45, 200-205   5

64   The European R&D-Project MORPH: Marine robotic systems of self-organizing, logically linked physical nodes. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2012**, 45, 226-231   4

63	MBpIC-SLAM: Probabilistic Surface Matching for Bathymetry Based SLAM. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2012**, 45, 126-131		2
62	Homotopic Path Planning for an AUV on Maps Improved with Scan Matching. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2012**, 45, 204-209		2
61	The Girona 500, a multipurpose autonomous underwater vehicle **2011**,		14
60	A Search-based Path Planning Algorithm with Topological Constraints. Application to an AUV*. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2011**, 44, 13654-13659		4
59	Navigating and mapping with the SPARUS AUV in a natural and unstructured underwater environment **2011**,		5
58	Path planning with homotopy class constraints on bathymetric maps **2011**,		3
57	Kornati bathymetry survey data-set for navigation and mapping **2011**,		1
56	A topologically guided path planner for an AUV using homotopy classes **2011**,		8
55	USBL/DVL navigation through delayed position fixes **2011**,		6
54	Attracting talent to increase interest for engineering among secondary school students **2011**,		6
53	Underwater SLAM for Structured Environments Using an Imaging Sonar. *Springer Tracts in Advanced Robotics*, **2010**,	0.5	28
52	A survey on Terrain Based Navigation for AUVs **2010**,		33
51	Probabilistic sonar scan matching SLAM for underwater environment **2010**,		8
50	Acoustic-Based Techniques for Autonomous Underwater Vehicle Localization. *Proceedings of the Institution of Mechanical Engineers Part M: Journal of Engineering for the Maritime Environment*, **2010**, 224, 293-307	0.4	13
49	A distributed architecture for enabling autonomous underwater Intervention Missions **2010**,		5
48	Multiple vehicles mission coordination using Petri nets **2010**,		10
47	EKF-SLAM for AUV navigation under probabilistic sonar scan-matching **2010**,		27
46	New approach for a Reconfigurable Autonomous Underwater Vehicle for Intervention. *IEEE Aerospace and Electronic Systems Magazine*, **2010**, 25, 32-36	2.4	6

45	Towards a Deliberative Mission Control System for an AUV. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2010**, 43, 509-514		
44	TRIDENT: A Framework for Autonomous Underwater Intervention Missions with Dexterous Manipulation Capabilities. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2010**, 43, 187-192		21
43	Speeding-up Particle Convergence with Probabilistic Active Localisation for AUV. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2010**, 43, 521-526		3
42	Visual inspection of hydroelectric dams using an autonomous underwater vehicle. *Journal of Field Robotics*, **2010**, 27, 759-778	6.7	77
41	Understanding Mechanically Scanned Imaging Sonars. *Springer Tracts in Advanced Robotics*, **2010**, 37-46	0.5	2
40	Simultaneous Localization and Mapping. *Springer Tracts in Advanced Robotics*, **2010**, 77-112	0.5	2
39	Dam wall detection and tracking using a Mechanically Scanned Imaging Sonar **2009**,		6
38	Sonar-based AUV localization using an improved particle filter approach **2009**,		10
37	Probabilistic sonar scan matching for an AUV **2009**,		11
36	A new approach for a Reconfigurable Autonomous Underwater Vehicle for Intervention **2009**,		5
35	Vision based localization system for AUV docking on subsea intervention panels **2009**,		13
34	Using petri nets to specify and execute missions for autonomous underwater vehicles **2009**,		9
33	Pose-based SLAM with probabilistic scan matching algorithm using a mechanical scanned imaging sonar **2009**,		24
32	Mission Control System for an Autonomous Vehicle: Application Study of a Dam Inspection using an AUV. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2009**, 42, 66-71		
31	Particle Filter Based AUV Localization using Imaging Sonar. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2009**, 42, 52-57		5
30	Occupancy Grid Mapping in an Underwater Structured Environment. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2009**, 42, 286-291		6
29	MSISpIC: a probabilistic scan matching algorithm using a mechanical scanned imaging sonar. *Journal of Physical Agents*, **2009**, 3, 3-11		6
28	Towards a Mission Control Language for AUVs. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2008**, 41, 15028-15033		4

27	Underwater SLAM in man-made structured environments. *Journal of Field Robotics*, **2008**, 25, 898-921	6.7	136
26	Design of a mission control system for an AUV. *International Journal of Control*, **2007**, 80, 993-1007	1.5	3
25	Application of SONQL for real-time learning of robot behaviors. *Robotics and Autonomous Systems*, **2007**, 55, 628-642	3.5	11
24	Underwater SLAM in a marina environment **2007**,		24
23	ICTINEUAUV Wins the First SAUC-E Competition. *Proceedings - IEEE International Conference on Robotics and Automation*, **2007**,		23
22	A GLOBAL LOCALIZATION SYSTEM FOR STRUCTURED ENVIRONMENTS USING AN IMAGING SONAR. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2007**, 40, 187-192		
21	A METHOD FOR EXTRACTING LINES AND THEIR UNCERTAINTY FROM ACOUSTIC UNDERWATER IMAGES FOR SLAM. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2007**, 40, 61-66		
20	Underwater Telerobotics for Collaborative Research **2007**, 347-359		9
19	Line Extraction from Mechanically Scanned Imaging Sonar. *Lecture Notes in Computer Science*, **2007**, 322-329		8
18	Direct Gradient-Based Reinforcement Learning for Robot Behavior Learning **2007**, 175-182		2
17	**2006**,		55
16	Towards Direct Policy Search Reinforcement Learning for Robot Control **2006**,		6
15	Mission control system for dam inspection with an AUV **2006**,		11
14	A behavior-based scheme using reinforcement learning for autonomous underwater vehicles. *IEEE Journal of Oceanic Engineering*, **2005**, 30, 416-427	3.3	39
13	Autonomous underwater vehicle control using reinforcement learning policy search methods **2005**,		5
12	On the identification of non-linear models of unmanned underwater vehicles. *Control Engineering Practice*, **2004**, 12, 1483-1499	3.9	78
11	Identification of Non Linear Models of Unmanned Underwater Vehicles: Comparison Between Two Identification Methods. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2003**, 36, 13-18		4
10	On the Identification of Non Linear Models of Unmanned Underwater Vehicles. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2003**, 36, 55-60		2

| 9 | An EKF vision-based navigation of an UUV in a structured environment. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2003**, 36, 287-292 | | 1 |

| 8 | Fault Detection and Accommodation for ROVs. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2003**, 36, 127-132 | | 6 |

| 7 | Designing a Fuzzy-like PD controller for an underwater robot. *Control Engineering Practice*, **2003**, 11, 471-480 | 3.9 | 44 |

| 6 | High-Accuracy Localization of an Underwater Robot in a~Structured Environment Using Computer Vision. *Lecture Notes in Computer Science*, **2003**, 150-157 | 0.9 | 2 |

| 5 | A New FPGA/DSP-Based Parallel Architecture for Real-Time Image Processing. *Real Time Imaging*, **2002**, 8, 345-356 | | 41 |

| 4 | O2CA2, a new object oriented control architecture for autonomy: the reactive layer. *Control Engineering Practice*, **2002**, 10, 857-873 | 3.9 | 9 |

| 3 | Recent trends in control architectures for autonomous underwater vehicles. *International Journal of Systems Science*, **1999**, 30, 1033-1056 | 2.3 | 35 |

| 2 | Sensorial and Navigation Systems for a Mobile Robot (Roger). *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **1998**, 31, 279-284 | | |

| 1 | Sonar-based simultaneous localization and mapping for autonomous underwater vehicles149-170 | | |