

Yvan R PÃ©tillot

List of Publications by Year in descending order

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Version: 2024-02-01

123
papers

3,434
citations

279798

23
h-index

223800

46
g-index

123
all docs

123
docs citations

123
times ranked

2400
citing authors

#	ARTICLE	IF	CITATIONS
1	AUV localisation: a review of passive and active techniques. International Journal of Intelligent Robotics and Applications, 2022, 6, 246-269.	2.8	26
2	Online Mapping and Motion Planning Under Uncertainty for Safe Navigation in Unknown Environments. IEEE Transactions on Automation Science and Engineering, 2022, 19, 3356-3378.	5.2	10
3	Porous Elastomer Based Wide Range Flexible Pressure Sensor for Autonomous Underwater Vehicles. IEEE Sensors Journal, 2022, 22, 9914-9921.	4.7	16
4	RadarSLAM: A robust simultaneous localization and mapping system for all weather conditions. International Journal of Robotics Research, 2022, 41, 519-542.	8.5	12
5	Sectorized FMCW MIMO Radar by Modular Design With Non-Uniform Sparse Arrays. IEEE Journal of Microwaves, 2022, 2, 442-460.	6.5	5
6	Sliding Mode Controller for Positioning of an Underwater Vehicle Subject to Disturbances and Time Delays. , 2022, , .		3
7	Manipulation at optimum locations for maximum force transmission with mobile robots under environmental disturbances. Autonomous Robots, 2022, 46, 769-782.	4.8	4
8	Robust Silent Localization of Underwater Acoustic Sensor Network Using Mobile Anchor(s). Sensors, 2021, 21, 727.	3.8	7
9	Online 3-Dimensional Path Planning with Kinematic Constraints in Unknown Environments Using Hybrid A* with Tree Pruning. Sensors, 2021, 21, 1152.	3.8	17
10	Path Planning for Manipulation Using Experience-Driven Random Trees. IEEE Robotics and Automation Letters, 2021, 6, 3295-3302.	5.1	17
11	Application of Adaptive and Switching Control for Contact Maintenance of a Robotic Vehicle-Manipulator System for Underwater Asset Inspection. Frontiers in Robotics and AI, 2021, 8, 706558.	3.2	5
12	Connected Sensors, Innovative Sensor Deployment, and Intelligent Data Analysis for Online Water Quality Monitoring. IEEE Internet of Things Journal, 2021, 8, 13805-13824.	8.7	32
13	Robust Underwater Visual SLAM Fusing Acoustic Sensing. , 2021, , .		20
14	Robust Underwater SLAM using Autonomous Relocalisation. IFAC-PapersOnLine, 2021, 54, 273-280.	0.9	4
15	Underwater Visual Acoustic SLAM with Extrinsic Calibration. , 2021, , .		11
16	Learning-Based Underwater Autonomous Grasping via 3D Point Cloud. , 2021, , .		0
17	From market-ready ROVs to low-cost AUVs. , 2021, , .		10
18	Learning Mobile Manipulation through Deep Reinforcement Learning. Sensors, 2020, 20, 939.	3.8	49

#	ARTICLE	IF	CITATIONS
19	RadarSLAM: Radar based Large-Scale SLAM in All Weathers. , 2020, , .		56
20	Towards Robust Mission Execution via Temporal and Contingent Planning. Lecture Notes in Computer Science, 2020, , 214-217.	1.3	1
21	Self-Assessment of Grasp Affordance Transfer. , 2020, , .		8
22	Multi-agent Strategy for Marine Applications via Temporal Planning. , 2019, , .		5
23	Exploring Interaction with Remote Autonomous Systems using Conversational Agents. , 2019, , .		5
24	Global Localization with Object-Level Semantics and Topology. , 2019, , .		34
25	Sampling-Based Path Planning for Cooperative Autonomous Maritime Vehicles to Reduce Uncertainty in Range-Only Localization. IEEE Robotics and Automation Letters, 2019, 4, 3987-3994.	5.1	19
26	Learning Generalizable Coupling Terms for Obstacle Avoidance via Low-Dimensional Geometric Descriptors. IEEE Robotics and Automation Letters, 2019, 4, 3979-3986.	5.1	21
27	Underwater Robots: From Remotely Operated Vehicles to Intervention-Autonomous Underwater Vehicles. IEEE Robotics and Automation Magazine, 2019, 26, 94-101.	2.0	97
28	TextPlace: Visual Place Recognition and Topological Localization Through Reading Scene Texts. , 2019, , .		29
29	Learning and Composing Primitive Skills for Dual-Arm Manipulation. Lecture Notes in Computer Science, 2019, , 65-77.	1.3	6
30	Position/force operational space control for underwater manipulation. Robotics and Autonomous Systems, 2018, 100, 150-159.	5.1	18
31	AUV Position Tracking Control Using End-to-End Deep Reinforcement Learning. , 2018, , .		24
32	Coupled and Decoupled Force/Motion Controllers for an Underwater Vehicle-Manipulator System. Journal of Marine Science and Engineering, 2018, 6, 96.	2.6	26
33	Ocean Monitoring Framework based on Compressive Sensing using Acoustic Sensor Networks. , 2018, , .		5
34	Robust TDA-MAC for practical underwater sensor network deployment. , 2018, , .		13
35	A Natural Language Interface with Relayed Acoustic Communications for Improved Command and Control of AUVs. , 2018, , .		4
36	StaticFusion: Background Reconstruction for Dense RGB-D SLAM in Dynamic Environments. , 2018, , .		117

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37	Three-dimensional reconstruction of underwater objects using wide-aperture imaging SONAR. Journal of Field Robotics, 2018, 35, 890-905.	6.0	49
38	3D Laser Scanner for Underwater Manipulation. Sensors, 2018, 18, 1086.	3.8	40
39	Adaptive low-level control of autonomous underwater vehicles using deep reinforcement learning. Robotics and Autonomous Systems, 2018, 107, 71-86.	5.1	116
40	euRathlon and ERL Emergency: A Multi-domain Multi-robot Grand Challenge for Search and Rescue Robots. Advances in Intelligent Systems and Computing, 2018, , 263-271.	0.6	4
41	Increasing circular synthetic aperture sonar resolution via adapted wave atoms deconvolution. Journal of the Acoustical Society of America, 2017, 141, 2623-2632.	1.1	12
42	Spatially Distributed MIMO Sonar Systems: Principles and Capabilities. IEEE Journal of Oceanic Engineering, 2017, 42, 738-751.	3.8	20
43	Direct visual SLAM fusing proprioception for a humanoid robot. , 2017, , .		25
44	Target classification in SAS imagery using orthogonal basis selection. , 2017, , .		0
45	Underwater Three-Dimensional Imaging using Single-Photon Detection. , 2017, , .		2
46	euRathlon 2015: A Multi-domain Multi-robot Grand Challenge for Search and Rescue Robots. Lecture Notes in Computer Science, 2016, , 351-363.	1.3	15
47	Depth imaging in highly scattering underwater environments using time-correlated single-photon counting. Proceedings of SPIE, 2016, , .	0.8	6
48	MIMO sonar systems for harbour surveillance. , 2015, , .		5
49	Underwater depth imaging using time-correlated single-photon counting. Optics Express, 2015, 23, 33911.	3.4	153
50	Reduction of the dynamic coupling in an underwater vehicle-manipulator system using an inverse dynamic model approach. IFAC-PapersOnLine, 2015, 48, 44-49.	0.9	7
51	Fourier-based Registration for Robust Forward-looking Sonar Mosaicing in Low-visibility Underwater Environments. Journal of Field Robotics, 2015, 32, 123-151.	6.0	102
52	Structured light and stereo vision for underwater 3D reconstruction. , 2015, , .		8
53	An adaptive controller for autonomous underwater vehicles. , 2015, , .		16
54	Wideband CDMA Waveforms for Large MIMO Sonar Systems. , 2015, , .		6

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55	Model-driven analysis and design for software development of autonomous underwater vehicles. <i>Robotica</i> , 2015, 33, 1731-1750.	1.9	20
56	Underwater 3D reconstruction using BlueView imaging sonar. , 2015, , .		18
57	Underwater depth imaging using time-correlated single photon counting. , 2015, , .		3
58	Performance measures to improve evaluation of teams in the euRathlon 2014 sea robotics competition~.... <i>IFAC-PapersOnLine</i> , 2015, 48, 224-230.	0.9	9
59	Capability-oriented robot architecture for maritime autonomy. <i>Robotics and Autonomous Systems</i> , 2015, 67, 87-104.	5.1	10
60	Reducing false alarms in automated target recognition using local sea-floor characteristics. , 2014, , .		8
61	Large MIMO sonar systems: A tool for underwater surveillance. , 2014, , .		9
62	Dynamic coupling and control issues for a lightweight underwater vehicle manipulator system. , 2014, , .		13
63	Cyber-physical framework for early integration of autonomous maritime capabilities. , 2013, , .		3
64	An Ontology-Based Approach to Fault Tolerant Mission Execution for Autonomous Platforms. , 2013, , 225-255.		5
65	Cascade of boosted classifiers for automatic target recognition in synthetic aperture sonar imagery. <i>Proceedings of Meetings on Acoustics</i> , 2013, , .	0.3	7
66	Design of artificial landmarks for underwater simultaneous localisation and mapping. <i>IET Radar, Sonar and Navigation</i> , 2013, 7, 10-18.	1.8	7
67	A hybrid algorithm for coverage path planning with imperfect sensors. , 2013, , .		4
68	A global control scheme for free-floating vehicle-manipulators. , 2013, , .		6
69	Evaluation of registration methods on two-dimensional forward-looking sonar imagery. , 2013, , .		30
70	Target detection using statistical MIMO. <i>Proceedings of Meetings on Acoustics</i> , 2013, , .	0.3	1
71	Fourier-based registrations for two-dimensional forward-looking sonar image mosaicing. , 2012, , .		46
72	Detector and Waveform Design for MIMO Radar System with Noisy Channel Estimation. <i>IEEE Transactions on Aerospace and Electronic Systems</i> , 2012, 48, 2332-2348.	4.7	5

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73	Integrated MCM missions using heterogeneous fleets of AUVs. , 2012, , .		8
74	Marine world representation and acoustic communication: Challenges for multi-robot collaboration. , 2012, , .		4
75	Cognitive Control Architecture for autonomous marine vehicles. , 2012, , .		7
76	Efficient Resource Allocation for Attentive Automotive Vision Systems. IEEE Transactions on Intelligent Transportation Systems, 2012, 13, 859-872.	8.0	22
77	Multi-compartment heart segmentation in CT angiography using a spatially varying gaussian classifier. International Journal of Computer Assisted Radiology and Surgery, 2012, 7, 829-836.	2.8	2
78	Feature extraction for underwater visual SLAM. , 2011, , .		33
79	Unconstrained Synthesis of Covariance Matrix for MIMO Radar Transmit Beampattern. IEEE Transactions on Signal Processing, 2011, 59, 3837-3849.	5.3	125
80	Semantic Knowledge-Based Framework to Improve the Situation Awareness of Autonomous Underwater Vehicles. IEEE Transactions on Knowledge and Data Engineering, 2011, 23, 759-773.	5.7	60
81	Finite Alphabet Constant-Envelope Waveform Design for MIMO Radar. IEEE Transactions on Signal Processing, 2011, 59, 5326-5337.	5.3	98
82	The Application of Bioinspired Sonar to Cable Tracking on the Seafloor. Eurasip Journal on Advances in Signal Processing, 2011, 2011, .	1.7	10
83	Submapping SLAM based on acoustic data from a 6-DOF AUV. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 16-21.	0.4	2
84	High-Resolution Sonars: What Resolution Do We Need for Target Recognition?. Eurasip Journal on Advances in Signal Processing, 2010, 2010, .	1.7	19
85	Speeding-up Particle Convergence with Probabilistic Active Localisation for AUV. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 521-526.	0.4	4
86	A survey on Terrain Based Navigation for AUVs. , 2010, , .		46
87	Feature based slam using side-scan salient objects. , 2010, , .		14
88	3-D Motion Estimation in passive navigation by acoustic imaging. , 2010, , .		0
89	Particle diversity reduction for AUV's active localisation. , 2010, , .		3
90	Selective Submap Joining for underwater large scale 6-DOF SLAM. , 2010, , .		7

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91	Performance and accuracy in visual motion computation from FS sonar video sequences. , 2010, , .		4
92	Local map update for large scale SLAM. Electronics Letters, 2010, 46, 564.	1.0	5
93	EKF-SLAM for AUV navigation under probabilistic sonar scan-matching. , 2010, , .		44
94	Investigation of portability of space docking techniques for autonomous underwater docking. , 2009, , .		8
95	Interoperability of agent capabilities for autonomous knowledge acquisition and decision making in unmanned platforms. , 2009, , .		4
96	Sonar-based AUV localization using an improved particle filter approach. , 2009, , .		12
97	Acoustic Stereo Imaging (ASI) system. , 2009, , .		8
98	Pose-based SLAM with probabilistic scan matching algorithm using a mechanical scanned imaging sonar. , 2009, , .		33
99	Real-time sidescan simulator and applications. , 2009, , .		13
100	Particle Filter Based AUV Localization using Imaging Sonar. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 52-57.	0.4	10
101	Predicted Detection Performance of MIMO Radar. IEEE Signal Processing Letters, 2008, 15, 83-86.	3.6	23
102	Visual SLAM for 3D large-scale seabed acquisition employing underwater vehicles. , 2008, , .		8
103	A particle filter approach for AUV localization. , 2008, , .		35
104	Human Body Pose Estimation with Particle Swarm Optimisation. Evolutionary Computation, 2008, 16, 509-528.	3.0	32
105	Investigation of autonomous docking strategies for robotic operation on intervention panels. , 2008, , .		17
106	Fault tolerant adaptive mission planning with semantic knowledge representation for autonomous underwater vehicles. , 2008, , .		11
107	Semantic knowledge-based representation for improving situation awareness in service oriented agents of autonomous underwater vehicles. , 2008, , .		14
108	Adaptive mission plan diagnosis and repair for fault recovery in autonomous underwater vehicles. , 2008, , .		10

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109	Multiresolution 3-D Reconstruction From Side-Scan Sonar Images. IEEE Transactions on Image Processing, 2007, 16, 382-390.	9.8	80
110	Sidescan Sonar Segmentation Using Texture Descriptors and Active Contours. IEEE Journal of Oceanic Engineering, 2007, 32, 744-752.	3.8	53
111	Path Planning for Autonomous Underwater Vehicles. , 2007, 23, 331-341.		330
112	Detection and Tracking of Multiple Metallic Objects in Millimetre-Wave Images. International Journal of Computer Vision, 2007, 71, 183-196.	15.6	40
113	The fusion of large scale classified side-scan sonar image mosaics. IEEE Transactions on Image Processing, 2006, 15, 2049-2060.	9.8	65
114	Image processing techniques for metallic object detection with millimetre-wave images. Pattern Recognition Letters, 2006, 27, 1843-1851.	4.2	20
115	Millimetre-Wave Personnel Scanners for Automated Weapon Detection. Lecture Notes in Computer Science, 2005, , 48-57.	1.3	2
116	Image analysis for object detection in millimetre-wave images. , 2004, , .		16
117	Model-based approach to the detection and classification of mines in sidescan sonar. Applied Optics, 2004, 43, 237.	2.1	18
118	Concurrent mapping and localization using sidescan sonar. IEEE Journal of Oceanic Engineering, 2004, 29, 442-456.	3.8	117
119	An automatic approach to the detection and extraction of mine features in sidescan sonar. IEEE Journal of Oceanic Engineering, 2003, 28, 90-105.	3.8	172
120	Underwater vehicle obstacle avoidance and path planning using a multi-beam forward looking sonar. IEEE Journal of Oceanic Engineering, 2001, 26, 240-251.	3.8	187
121	Feature Tracking in Video and Sonar Subsea Sequences with Applications. Computer Vision and Image Understanding, 2000, 79, 92-122.	4.7	40
122	Image processing optimization by genetic algorithm with a new coding scheme. Pattern Recognition Letters, 1995, 16, 843-848.	4.2	13
123	Temporal Planning with Incomplete Knowledge and Perceptual Information. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 362, 37-53.	0.8	0