

Antonio Moccia

List of Publications by Year in descending order

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85
papers

1,295
citations

394421

19
h-index

395702

33
g-index

88
all docs

88
docs citations

88
times ranked

897
citing authors

#	ARTICLE	IF	CITATIONS
1	Multi-Sensor-Based Fully Autonomous Non-Cooperative Collision Avoidance System for Unmanned Air Vehicles. <i>Journal of Aerospace Computing, Information, and Communication</i> , 2008, 5, 338-360.	0.8	115
2	Spatial Resolution of Bistatic Synthetic Aperture Radar: Impact of Acquisition Geometry on Imaging Performance. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2011, 49, 3487-3503.	6.3	77
3	Sense and avoid for unmanned aircraft systems. <i>IEEE Aerospace and Electronic Systems Magazine</i> , 2016, 31, 82-110.	1.3	63
4	DEM generation by means of ERS tandem data. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 1998, 36, 1905-1912.	6.3	62
5	Spaceborne along-track SAR interferometry: performance analysis and mission scenarios. <i>IEEE Transactions on Aerospace and Electronic Systems</i> , 2001, 37, 199-213.	4.7	58
6	Synthetic Aperture Radar for Earth Observation from a Lunar Base: Performance and Potential Applications. <i>IEEE Transactions on Aerospace and Electronic Systems</i> , 2010, 46, 1034-1051.	4.7	57
7	Flight Test of a Radar-Based Tracking System for UAS Sense and Avoid. <i>IEEE Transactions on Aerospace and Electronic Systems</i> , 2013, 49, 1139-1160.	4.7	55
8	Differential GNSS and Vision-Based Tracking to Improve Navigation Performance in Cooperative Multi-UAV Systems. <i>Sensors</i> , 2016, 16, 2164.	3.8	55
9	Radar/electro-optical data fusion for non-cooperative UAS sense and avoid. <i>Aerospace Science and Technology</i> , 2015, 46, 436-450.	4.8	53
10	Segmentation of Marine SAR Images by Sublook Analysis and Application to Sea Traffic Monitoring. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2019, 57, 1463-1477.	6.3	41
11	A tethered interferometric synthetic aperture radar (SAR) for a topographic mission. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 1992, 30, 103-109.	6.3	37
12	Performance of spaceborne bistatic synthetic aperture radar. <i>IEEE Transactions on Aerospace and Electronic Systems</i> , 2005, 41, 1383-1395.	4.7	36
13	Attitude and antenna pointing design of bistatic radar formations. <i>IEEE Transactions on Aerospace and Electronic Systems</i> , 2003, 39, 949-960.	4.7	32
14	Use of Doppler Parameters for Ship Velocity Computation in SAR Images. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2016, 54, 3995-4011.	6.3	32
15	Integration of Automatic Identification System (AIS) Data and Single-Channel Synthetic Aperture Radar (SAR) Images by SAR-Based Ship Velocity Estimation for Maritime Situational Awareness. <i>Remote Sensing</i> , 2019, 11, 2196.	4.0	28
16	Performance of Stereoradargrammetric Methods Applied to Spaceborne Monostatic and Bistatic Synthetic Aperture Radar. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2009, 47, 544-560.	6.3	24
17	An Innovative Procedure for Calibration of Strapdown Electro-Optical Sensors Onboard Unmanned Air Vehicles. <i>Sensors</i> , 2010, 10, 639-654.	3.8	22
18	Flight Performance Analysis of an Image Processing Algorithm for Integrated Sense-and-Avoid Systems. <i>International Journal of Aerospace Engineering</i> , 2012, 2012, 1-8.	0.9	21

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19	Preliminary Study of a Millimeter Wave FMCW InSAR for UAS Indoor Navigation. <i>Sensors</i> , 2015, 15, 2309-2335.	3.8	21
20	Experimental Analysis of Radar Odometry by Commercial Ultralight Radar Sensor for Miniaturized UAS. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2018, 90, 485-503.	3.4	20
21	Morphological filtering and target tracking for vision-based UAS sense and avoid. , 2014, , .		19
22	Real Time Corner Detection for Miniaturized Electro-Optical Sensors Onboard Small Unmanned Aerial Systems. <i>Sensors</i> , 2012, 12, 863-877.	3.8	17
23	SAR Bathymetry in the Tyrrhenian Sea by COSMO-SkyMed Data: A Novel Approach. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2014, 7, 2834-2847.	4.9	17
24	Laboratory Test System for Performance Evaluation of Advanced Star Sensors. <i>Journal of Guidance, Control, and Dynamics</i> , 2002, 25, 200-208.	2.8	16
25	An Integrated Electro-Optical Payload System for Forest Fires Monitoring from Airborne Platform. , 2007, , .		16
26	Moon-based Synthetic Aperture Radar: Review and challenges. , 2016, , .		14
27	In-flight performance analysis of a non-cooperative radar-based sense and avoid system. <i>Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering</i> , 2016, 230, 1592-1604.	1.3	14
28	Formation Flying SAR: Analysis of Imaging Performance by Array Theory. <i>IEEE Transactions on Aerospace and Electronic Systems</i> , 2021, 57, 1480-1497.	4.7	14
29	Mission analysis and design of a bistatic synthetic aperture radar on board a small satellite. <i>Acta Astronautica</i> , 2000, 47, 819-829.	3.2	13
30	Performance Analysis and Design of an Obstacle Detection and Identification System. , 2005, , .		13
31	Sky Region Obstacle Detection and Tracking for Vision-Based UAS Sense and Avoid. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2016, 84, 121-144.	3.4	13
32	Passive and active calibrator characterization using a spaceborne SAR system simulator. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 1994, 32, 715-721.	6.3	12
33	Linear Dispersion Relation and Depth Sensitivity to Swell Parameters: Application to Synthetic Aperture Radar Imaging and Bathymetry. <i>Scientific World Journal</i> , The, 2015, 2015, 1-10.	2.1	12
34	Experimental analysis of onboard non-cooperative sense and avoid solutions based on radar, optical sensors, and data fusion. <i>IEEE Aerospace and Electronic Systems Magazine</i> , 2016, 31, 6-14.	1.3	12
35	Automatic Collision Avoidance System: Design, development and flight tests. , 2011, , .		11
36	Ultralight radar sensor for autonomous operations by micro-UAS. , 2016, , .		11

#	ARTICLE	IF	CITATIONS
37	Galileo-based space-airborne bistatic SAR for UAS navigation. Aerospace Science and Technology, 2013, 27, 193-200.	4.8	10
38	Compact millimeter wave FMCW InSAR for UAS indoor navigation. , 2015, , .		10
39	Tracking of Coastal Swell Fields in SAR Images for Sea Depth Retrieval: Application to ALOS L-Band Data. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 3532-3540.	4.9	9
40	PCA-Based Line Detection from Range Data for Mapping and Localization-Aiding of UAVs. International Journal of Aerospace Engineering, 2017, 2017, 1-14.	0.9	9
41	PRF Selection in Formation-Flying SAR: Experimental Verification on Sentinel-1 Monostatic Repeat-Pass Data. Remote Sensing, 2020, 12, 29.	4.0	8
42	Space Station based tethered interferometer for natural disaster monitoring. Journal of Spacecraft and Rockets, 1996, 33, 700-706.	1.9	7
43	Integrated Obstacle Detection System based on Radar and Optical Sensors. , 2010, , .		7
44	An Optical Flow Based Electro-Optical See-and-Avoid System for UAVs. , 2007, , .		6
45	Passive SAR satellite constellation for near-persistent earth observation: Prospects and issues. IEEE Aerospace and Electronic Systems Magazine, 2018, 33, 4-15.	1.3	6
46	Bistatic Synthetic Aperture Radar. , 2013, , 3-59.		6
47	Effects of Orbit and Pointing Geometry of a Spaceborne Formation for Monostatic-Bistatic Radargrammetry on Terrain Elevation Measurement Accuracy. Sensors, 2009, 9, 175-195.	3.8	5
48	Data Fusion for UAS Collision Avoidance: Results from Flight Testing. , 2011, , .		5
49	Formation-Flying SAR Receivers in Far-From-Transmitter Geometry: Signal Model and Processing Scheme. , 2021, , .		5
50	Remote sensing satellite formation for bistatic synthetic aperture radar observation. , 2001, , .		4
51	Multi-sensor data fusion: A tool to enable UAS integration into civil airspace. , 2011, , .		4
52	Real-Time Hardware-in-the-Loop Laboratory Testing for Multisensor Sense and Avoid Systems. International Journal of Aerospace Engineering, 2013, 2013, 1-9.	0.9	4
53	Ship velocity estimation by Doppler Centroid analysis of focused SAR data. , 2014, , .		4
54	L-band SAR image processing for the determination of coastal bathymetry based on swell analysis. , 2014, , .		4

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55	Fundamentals of Bistatic Synthetic Aperture Radar. , 0, , 1-26.		4
56	Tethered system attitude control after attachment point blocking. Acta Astronautica, 1994, 32, 355-362.	3.2	3
57	<title>Scientific applications of a bistatic radar mission based on a small satellite</title>. , 2002, 4543, 1.		3
58	Image processing algorithm for integrated sense and avoid systems. Proceedings of SPIE, 2010, , .	0.8	3
59	Automatic Collision Avoidance System: Design, development and flight tests. , 2011, , .		3
60	Challenges and Solutions for Vision-based Sense and Avoid. , 2015, , .		3
61	Hybrid space-airborne bistatic SAR geometric resolutions. Proceedings of SPIE, 2009, , .	0.8	2
62	Spaceborne-airborne bistatic radar for UAS navigation purposes: Preliminary analysis and strawman system identification. , 2010, , .		2
63	Laboratory Test Facility for Simulating a Sense and Avoid Flight System. , 2010, , .		2
64	Flight Performance Assessment of Vision-based Detection and Tracking for UAS Sense and Avoid. , 2013, , .		2
65	Performance analysis of millimeter wave FMCW InSAR for UAS indoor operations. , 2015, , .		2
66	Sabrina. , 2013, , 447-471.		2
67	<title>Bistatic SAR for Earth observation</title>. , 2000, , .		1
68	Microsatellite Laser Altimeter. IEEE Transactions on Aerospace and Electronic Systems, 2006, 42, 1187-1197.	4.7	1
69	Particle Filtering for Obstacle Tracking in UAS Sense and Avoid Applications. Scientific World Journal, The, 2014, 2014, 1-12.	2.1	1
70	Architectures and algorithms for non-cooperative sense and avoid. , 2014, , .		1
71	Indoor Operations by FMCW Millimeter Wave SAR Onboard Small UAS: A Simulation Approach. Journal of Sensors, 2016, 2016, 1-13.	1.1	1
72	Investigation on radar-based applications for mini-UAS and MAVs. , 2016, , .		1

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73	Multi-purposes radar for remote sensing and navigation by mini and micro unmanned aerial vehicles. , 2016, , .		1
74	Real-Time Simulation and Data Fusion of Navigation Sensors for Autonomous Aerial Vehicles. , 2007, , 127-136.		1
75	Formation-Flying SAR Receivers in FAR-from-Transmitter Geometry: X-Band SAR Antenna Design. , 2021, , .		1
76	Spaceborne Bistatic Synthetic Aperture Radar. , 0, , 27-65.		1
77	X-Band SAR Antenna Design for a CubeSat Formation-Flying Remote Sensing Mission. , 2021, , .		1
78	Attitude control by inertia wheels of a tethered interferometric SAR for topographic mapping. Meccanica, 1993, 28, 333-339.	2.0	0
79	<title>Space constellation of high-resolution SARs for fast global access</title>. , 1996, 2958, 383.		0
80	Preliminary design of a space system operating a ground-penetrating radar. Acta Astronautica, 2005, 57, 851-863.	3.2	0
81	Real-Time Detection of Fire Hotspots from Mini-UAV Based, Thermal-InfraRed / VIS-NIR Hyperspectral Image-Data. , 2009, , .		0
82	Development of numerical sensor models for cooperative and non-cooperative collision avoidance. , 2013, , .		0
83	Prescreening and discrimination of maritime targets in single-channel SAR images. , 2016, , .		0
84	Orbit and Pointing Design of Remote Sensing Satellites for Natural Hazard Mapping. Journal of the Astronautical Sciences, 1999, 47, 133-150.	1.5	0
85	Design concepts for distributed synthetic aperture radar enabling innovative missions and imaging techniques by microsattelites. , 2020, , .		0