

Alberto Cavallo

List of Publications by Year in descending order

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104
papers

1,078
citations

430874

18
h-index

526287

27
g-index

106
all docs

106
docs citations

106
times ranked

652
citing authors

#	ARTICLE	IF	CITATIONS
1	The DEXMART hand: Mechatronic design and experimental evaluation of synergy-based control for human-like grasping. <i>International Journal of Robotics Research</i> , 2014, 33, 799-824.	8.5	133
2	Effects of hysteresis compensation in feedback control systems. <i>IEEE Transactions on Magnetics</i> , 2003, 39, 1389-1392.	2.1	50
3	Atmospheric re-entry control for low lift/drag vehicles. <i>Journal of Guidance, Control, and Dynamics</i> , 1996, 19, 47-53.	2.8	38
4	High-order sliding control of mechanical systems: theory and experiments. <i>Control Engineering Practice</i> , 2004, 12, 1139-1149.	5.5	34
5	Feedback Control Systems for Micropositioning Tasks With Hysteresis Compensation. <i>IEEE Transactions on Magnetics</i> , 2004, 40, 876-879.	2.1	33
6	Hysteresis compensation of smart actuators under variable stress conditions. <i>Physica B: Condensed Matter</i> , 2008, 403, 261-265.	2.7	33
7	Robust control of flexible structures with stable bandpass controllers. <i>Automatica</i> , 2008, 44, 1251-1260.	5.0	29
8	Slipping detection and avoidance based on Kalman filter. <i>Mechatronics</i> , 2014, 24, 489-499.	3.3	27
9	Output feedback control based on a high-order sliding manifold approach. <i>IEEE Transactions on Automatic Control</i> , 2003, 48, 469-472.	5.7	26
10	Buck-boost DC/DC converter for aeronautical applications. , 2010, , .		26
11	Decentralized Sliding Mode voltage control in DC microgrids. , 2017, , .		25
12	Gray-Box Identification of Continuous-Time Models of Flexible Structures. <i>IEEE Transactions on Control Systems Technology</i> , 2007, 15, 967-981.	5.2	24
13	Integrated supervised adaptive control for the more Electric Aircraft. <i>Automatica</i> , 2020, 117, 108956.	5.0	24
14	Robust flight control systems - A parameter space design. <i>Journal of Guidance, Control, and Dynamics</i> , 1992, 15, 1207-1215.	2.8	23
15	Supervisory control of DC-DC bidirectional converter for advanced aeronautic applications. <i>International Journal of Robust and Nonlinear Control</i> , 2018, 28, 1-15.	3.7	23
16	Robust control design with integral action and limited rate control. <i>IEEE Transactions on Automatic Control</i> , 1999, 44, 1569-1572.	5.7	22
17	Optoelectronic joint angular sensor for robotic fingers. <i>Sensors and Actuators A: Physical</i> , 2009, 152, 203-210.	4.1	22
18	A sliding manifold approach for vibration reduction of flexible systems. <i>Automatica</i> , 1999, 35, 1689-1696.	5.0	20

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19	Dynamic Control of Water Distribution System Based on Network Partitioning. <i>Procedia Engineering</i> , 2016, 154, 1275-1282.	1.2	19
20	Multi-objective adaptive sliding manifold control for More Electric Aircraft. <i>ISA Transactions</i> , 2020, 107, 316-328.	5.7	19
21	Supercapacitor stability and control for More Electric Aircraft application. , 2020, , .		19
22	Supervised control of buck-boost converters for aeronautical applications. <i>Automatica</i> , 2017, 83, 73-80.	5.0	18
23	Sliding mode control for DC/DC converters. , 2012, , .		17
24	Limit Cycles in Control Systems Employing Smart Actuators With Hysteresis. <i>IEEE/ASME Transactions on Mechatronics</i> , 2005, 10, 172-180.	5.8	16
25	Robust stability analysis of polynomials with linearly dependent coefficient perturbations. <i>IEEE Transactions on Automatic Control</i> , 1991, 36, 380-384.	5.7	14
26	Control of Energy Storage Systems for Aeronautic Applications. <i>Journal of Control Science and Engineering</i> , 2017, 2017, 1-9.	1.0	14
27	ENIGMA“ A Centralised Supervisory Controller for Enhanced Onboard Electrical Energy Management with Model in the Loop Demonstration. <i>Energies</i> , 2021, 14, 5518.	3.1	14
28	Supervised Energy Management in Advanced Aircraft Applications. , 2018, , .		13
29	A sliding manifold approach to the feedback control of rigid robots. <i>International Journal of Robust and Nonlinear Control</i> , 1996, 6, 501-516.	3.7	12
30	Active vibration control by a smart auxiliary mass damper equipped with a fiber Bragg grating sensor. <i>Sensors and Actuators A: Physical</i> , 2009, 153, 180-186.	4.1	12
31	Selective modal control for vibration reduction in flexible structures. <i>Automatica</i> , 2017, 75, 282-287.	5.0	12
32	Buck-Boost Converter Control for Constant Power Loads in Aeronautical Applications. , 2018, , .		12
33	Hierarchical control for generator and battery in the more electric aircraft. <i>Science China Information Sciences</i> , 2019, 62, 1.	4.3	12
34	Modeling and slipping control of a planar slider. <i>Automatica</i> , 2020, 115, 108875.	5.0	12
35	Attitude control for low lift/drag re-entry vehicles. <i>Journal of Guidance, Control, and Dynamics</i> , 1996, 19, 816-822.	2.8	11
36	Supervised bidirectional DC/DC converter for intelligent fuel cell vehicles energy management. , 2012, , .		11

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37	Online Segmentation and Classification of Manipulation Actions From the Observation of Kinetostatic Data. IEEE Transactions on Human-Machine Systems, 2014, 44, 256-269.	3.5	11
38	A Petri net application for energy management in aeronautical networks. , 2013, , .		10
39	Smart Buck-Boost Converter Unit operations for aeronautical applications. , 2015, , .		10
40	Energy Storage System Control for Energy Management in Advanced Aeronautic Applications. Mathematical Problems in Engineering, 2017, 2017, 1-9.	1.1	10
41	Multi-Objective Supervisory Control for DC/DC Converters in Advanced Aeronautic Applications. Energies, 2018, 11, 3216.	3.1	10
42	Implementation of control and protection logics for a bidirectional DC/DC converter. , 2010, , .		9
43	Fuzzy scheduling of robust controllers for islanded DC microgrids applications. International Journal of Dynamics and Control, 2019, 7, 690-700.	2.5	9
44	H<sub>g&t;∞</sub> Strongly Stabilizing Bandpass Controllers for Flexible Systems. , 2006, , .		8
45	Robust Control of Aeronautical Electrical Generators for Energy Management Applications. International Journal of Aerospace Engineering, 2017, 2017, 1-12.	0.9	8
46	Supervisory Control for Energy Storage System Onboard Aircraft. , 2018, , .		8
47	Generalized Super-Twisting control of a Dual Active Bridge for More Electric Aircraft. , 2021, , .		8
48	Attitude control for large angle maneuvers. , 0, , .		7
49	DC motor control with sliding mode switching modulator. , 0, , .		6
50	High-order fuzzy sliding manifold control. Fuzzy Sets and Systems, 2005, 156, 249-266.	2.7	6
51	Automated fuzzy decision and control system for reservoir management. Journal of Water Supply: Research and Technology - AQUA, 2013, 62, 189-204.	1.4	6
52	Boost Full Bridge Bidirectional DC/DC Converter for Supervised Aeronautical Applications. International Journal of Aerospace Engineering, 2014, 2014, 1-13.	0.9	6
53	Second order sliding manifold approach for vibration reduction via output feedback: experimental results. , 0, , .		5
54	Primitive actions extraction for a human hand by using SVD. , 2011, , .		5

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55	Integral-Input-to-State Stability of Switched Nonlinear Systems Under Slow Switching. IEEE Transactions on Automatic Control, 2022, 67, 5841-5855.	5.7	5
56	Higher-Order Sliding Mode design with Bounded Integral Control generation. Automatica, 2022, 143, 110430.	5.0	5
57	A ROBUST OUTPUT FEEDBACK CONTROL LAW FOR MIMO PLANTS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 13-18.	0.4	3
58	Supervised bidirectional DC/DC converter for intelligent Hybrid Electric Vehicles energy management. , 2012, , .		3
59	Average Models for Aeronautical Electrical Networks: An Application for Intelligent Load Power Management. , 2012, , .		3
60	Power management of DC aeronautical electrical networks including supercapacitors. , 2015, , .		3
61	Attitude and velocity high-gain control of a tilt-trirotor UAV. , 2017, , .		3
62	Experimental Modal Analysis based on a Gray-box Model of Flexible Structures. , 2015, , .		3
63	A trajectory and attitude control strategy for the CRV/CRT atmospheric reentry. , 1996, , .		2
64	A robust controller for active vibration control of flexible systems. , 0, , .		2
65	Sliding manifold approach to the control of rigid robots: Experimental results. Control Engineering Practice, 1997, 5, 619-625.	5.5	2
66	Second order sliding output control of Permanent Magnet Synchronous Machines. , 2009, , .		2
67	Using SVD for Segmentation and Classification of Human Hand Actions. , 2011, , .		2
68	Rate-limiter control comparison for energy storage systems in aerospace applications. , 2016, , .		2
69	Optimal Fuzzy Management of Reservoir based on Genetic Algorithm. Mathematical Modelling: Theory and Applications, 2008, , 139-159.	0.2	2
70	A Hidden Markov Model-Based Approach to Grasping Hand Gestures Classification. Smart Innovation, Systems and Technologies, 2016, , 415-423.	0.6	2
71	Probability Learning and Soft Quantization in Bayesian Factor Graphs. Smart Innovation, Systems and Technologies, 2013, , 3-10.	0.6	2
72	3-D Hand Pose Estimation from Kinectâ€™s Point Cloud Using Appearance Matching. Smart Innovation, Systems and Technologies, 2016, , 37-45.	0.6	2

#	ARTICLE	IF	CITATIONS
73	Robust stability analysis of uncertain linear time invariant dynamical systems. , 0, , .		1
74	Robust vibration control of a DC9 aircraft frame. , 0, , .		1
75	AN OPTIMAL FUZZY APPROACH TO AUTOMATED RESERVOIR MANAGEMENT. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 127-132.	0.4	1
76	LIMIT CYCLES IN FEEDBACK CONTROL SYSTEMS WITH HYSTERESIS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 360-365.	0.4	1
77	On scaling matrices optimal selection for H ₂ strongly stabilizing bandpass controllers. , 2007, , .		1
78	On the selection of optimal turns ratio for transformers in isolated DC/DC boost full bridge converter. , 2010, , .		1
79	Saber Model Automatic Translation Tool for Aeronautical Simulations. , 2012, , .		1
80	An Optoelectronic Artificial Skin for Contact Force Vector Estimation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 7592-7597.	0.4	1
81	Intelligent power regulation using innovative modules for energy supervision. , 2015, , .		1
82	H ₂ strongly stabilizing bandpass controllers for selective natural modes damping in flexible structures. , 2015, , .		1
83	MIL-Standards Verification of Battery Control for More Electric Aircraft Application. Journal of Physics: Conference Series, 2021, 1828, 012057.	0.4	1
84	Real-Time Recognizing Human Hand Gestures. Lecture Notes in Computer Science, 2012, , 205-215.	1.3	1
85	Sensitivity minimization with pole assignment in SISO systems. , 1990, , .		0
86	A polynomial approach to simultaneous stabilization of SISO plants. , 0, , .		0
87	A note on computing the minimum distance between Lyapunov functions. , 0, , .		0
88	Vibration Control of Flexible Systems via Sliding Manifold Approach. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1997, 30, 389-394.	0.4	0
89	Experimental results on a second order sliding manifold approach for tracking problems. , 0, , .		0
90	A fuzzy decision support system for an hydraulic application. , 2007, , .		0

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91	An Advanced System for Vibration Control of Flexible Structures. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 11841-11846.	0.4	0
92	Evolution of the Probability of an MPM (Multiple Primary Malignancy) after a First Colon Tumor. , 2009, , .		0
93	A Class of Strongly Stabilizing Bandpass Controllers for Flexible Structures. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 14533-14538.	0.4	0
94	Classes of Strongly Stabilizing Bandpass Controllers for Flexible Structures. Advances in Acoustics and Vibration, 2012, 2012, 1-11.	0.5	0
95	Validation of Automated MAST to MODELICA Translation Tool for Aeronautical Application. , 2012, , .		0
96	On the entropy of the predator-prey model. , 2014, , .		0
97	MPC based Sliding Mode Control for More Electric Aircraft application. , 2021, , .		0
98	Implementation Issues. Profiles in Operations Research, 2008, , 327-344.	0.4	0
99	Modal Feedback Control of Flexible Structures. Advances in Industrial Control, 2010, , 55-77.	0.5	0
100	Identification of Flexible Structures. Advances in Industrial Control, 2010, , 29-54.	0.5	0
101	Modelling of Flexible Structures. Advances in Industrial Control, 2010, , 7-27.	0.5	0
102	Optimal Feedback Control of Flexible Structures. Advances in Industrial Control, 2010, , 79-122.	0.5	0
103	Experimental Results. , 2010, , 97-112.		0
104	Energy system management for aeronautic and aerospace applications: Demonstration and study cases. , 2022, , 373-418.		0