

Luigi Piroddi

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Supervisory Control of Timed Discrete-Event Systems With Logical and Temporal Specifications. IEEE Transactions on Automatic Control, 2022, 67, 2800-2815.	3.6	8
2	Active preference-based optimization for human-in-the-loop feature selection. European Journal of Control, 2022, 66, 100647.	1.6	2
3	Optimal Scheduling of Human-Robot Collaborative Assembly Operations With Time Petri Nets. IEEE Transactions on Automation Science and Engineering, 2021, 18, 70-84.	3.4	50
4	Model structure selection for switched NARX system identification: A randomized approach. Automatica, 2021, 125, 109415.	3.0	12
5	Data-driven indicators for the detection and prediction of stuck-pipe events in oil&gas drilling operations. Upstream Oil and Gas Technology, 2021, 7, 100043.	1.1	11
6	A switched nonlinear system identification method with switching location refinement. , 2021, , .		2
7	A randomized two-stage iterative method for switched nonlinear systems identification. Nonlinear Analysis: Hybrid Systems, 2020, 35, 100818.	2.1	18
8	Process noise covariance estimation via stochastic approximation. International Journal of Adaptive Control and Signal Processing, 2020, 34, 63-76.	2.3	5
9	A multi-tone central divided difference frequency tracker with adaptive process noise covariance tuning. International Journal of Adaptive Control and Signal Processing, 2020, 34, 877-900.	2.3	3
10	An alternating optimization method for switched linear systems identification. IFAC-PapersOnLine, 2020, 53, 1071-1076.	0.5	3
11	A distributed feature selection scheme with partial information sharing. Machine Learning, 2019, 108, 2009-2034.	3.4	4
12	Nonlinear system identification with model structure selection via distributed computation. , 2019, , .		1
13	Prediction of Human Activity Patterns for Human-Robot Collaborative Assembly Tasks. IEEE Transactions on Industrial Informatics, 2019, 15, 3934-3942.	7.2	80
14	A Feature Selection and Classification Algorithm Based on Randomized Extraction of Model Populations. IEEE Transactions on Cybernetics, 2018, 48, 1151-1162.	6.2	21
15	Human-robot collaborative assembly: a use-case application. IFAC-PapersOnLine, 2018, 51, 194-199.	0.5	24
16	A randomized approach to switched nonlinear systems identification. IFAC-PapersOnLine, 2018, 51, 281-286.	0.5	9
17	A distributed feature selection algorithm based on distance correlation with an application to microarrays. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2018, 16, 1-1.	1.9	15
18	Energy Management of a Building Cooling System With Thermal Storage: An Approximate Dynamic Programming Solution. IEEE Transactions on Automation Science and Engineering, 2017, 14, 619-633.	3.4	19

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19	A novel cost-effective parallel narrowband ANC system with local secondary-path estimation. Journal of Sound and Vibration, 2017, 401, 311-325.	2.1	17
20	Distributed randomized model structure selection for NARX models. International Journal of Adaptive Control and Signal Processing, 2017, 31, 1853-1870.	2.3	9
21	A randomised approach for NARX model identification based on a multivariate Bernoulli distribution. International Journal of Systems Science, 2017, 48, 1203-1216.	3.7	7
22	Smart city vizez project: Development and field test of an architecture for the local dispatching of distribution networks. , 2017, , .		1
23	Policy Search for the Optimal Control of Markov Decision Processes: A Novel Particle-Based Iterative Scheme. IEEE Transactions on Cybernetics, 2016, 46, 2643-2655.	6.2	13
24	Robust harmonic control: an application to structural vibration reduction in helicopters. IFAC-PapersOnLine, 2015, 48, 263-268.	0.5	3
25	A randomized algorithm for nonlinear model structure selection. Automatica, 2015, 60, 227-238.	3.0	29
26	A branch and bound approach for the design of decentralized supervisors in Petri net models. Automatica, 2015, 52, 322-333.	3.0	45
27	Fault detection and isolation of bearings in a drive reducer of a hot steel rolling mill. Control Engineering Practice, 2015, 39, 35-44.	3.2	22
28	Black-box MIMO model identification for structural vibration reduction in helicopters. IFAC-PapersOnLine, 2015, 48, 269-274.	0.5	1
29	A novel randomized approach to nonlinear system identification. , 2014, , .		2
30	Fault detection of bearings in a drive reducer of a hot steel rolling mill. , 2014, , .		1
31	A gradient-free adaptation method for nonlinear active noise control. Journal of Sound and Vibration, 2014, 333, 13-30.	2.1	6
32	A particle-based policy for the optimal control of Markov decision processes. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 10518-10523.	0.4	2
33	A dual filtering scheme for nonlinear active noise control. International Journal of Adaptive Control and Signal Processing, 2014, 28, 1422-1439.	2.3	1
34	Decentralized monitors design for Petri net models. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 73-79.	0.4	0
35	Integrated design of optimal supervisors for the enforcement of static and behavioral specifications in Petri net models. Automatica, 2013, 49, 3432-3439.	3.0	66
36	Designing Optimal Deadlock Avoidance Policies for Sequential Resource Allocation Systems Through Classification Theory: Existence Results and Customized Algorithms. IEEE Transactions on Automatic Control, 2013, 58, 2772-2787.	3.6	32

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37	Parsimonious deadlock-free Petri net models of flexible manufacturing systems. , 2013, , .		1
38	Parsimonious Monitor Control of Petri Net Models of Flexible Manufacturing Systems. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2013, 43, 215-221.	5.9	39
39	Active noise control of impulsive noise with selective outlier elimination. , 2013, , .		5
40	Approximate dynamic programming-based control of a building cooling system with thermal storage. , 2013, , .		14
41	Compact and decentralized supervisors for general constraint enforcement in Petri net models. , 2013, , .		2
42	An empirical weight update approach for nonlinear active noise control. , 2013, , .		1
43	Micro-grid energy management: A computational approach based on simulation and approximate discrete abstraction. , 2013, , .		3
44	A self-recovery approach to the probabilistic invariance problem for stochastic hybrid systems. , 2012, , .		4
45	Identification of polynomial input/output recursive models with simulation error minimisation methods. International Journal of Systems Science, 2012, 43, 319-333.	3.7	15
46	Black box model identification of nonlinear input-output models: A Wiener-Hammerstein benchmark. Control Engineering Practice, 2012, 20, 1109-1118.	3.2	21
47	Maximally permissive deadlock avoidance for sequential resource allocation systems using disjunctions of linear classifiers. , 2012, , .		9
48	Energy production estimation of a photovoltaic system with temperature-dependent coefficients. , 2012, , .		8
49	Active noise control with on-line estimation of non-Gaussian noise characteristics. Journal of Sound and Vibration, 2012, 331, 27-40.	2.1	45
50	Hybrid neural control systems: Some stability properties. Journal of the Franklin Institute, 2012, 349, 826-844.	1.9	1
51	Monitor optimization in Petri net control. , 2011, , .		14
52	Toward Air Traffic Complexity Assessment in New Generation Air Traffic Management Systems. IEEE Transactions on Intelligent Transportation Systems, 2011, 12, 809-818.	4.7	97
53	Environmental Over-Threshold Event Forecasting using NARX Models. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 10559-10564.	0.4	2
54	Active control of impulsive noise with on-line outlier detection. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 7909-7914.	0.4	1

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55	FPGA-based implementation of high-speed active noise and vibration controllers. Control Engineering Practice, 2011, 19, 798-808.	3.2	10
56	Simulation error minimization identification based on multi-stage prediction. International Journal of Adaptive Control and Signal Processing, 2011, 25, 389-406.	2.3	19
57	A nonlinear active noise control scheme with on-line model structure selection. , 2011, , .		5
58	NARX model selection based on simulation error minimisation and LASSO. IET Control Theory and Applications, 2010, 4, 1157-1168.	1.2	30
59	Nonlinear Active Noise Control With NARX Models. IEEE Transactions on Audio Speech and Language Processing, 2010, 18, 286-295.	3.8	39
60	Adaptive relay-based control of household freezers with on/off actuators. Control Engineering Practice, 2010, 18, 94-102.	3.2	33
61	Convergence properties of an iterative prediction approach to nonlinear SEM parameter estimation. , 2010, , .		0
62	A reachability graph partitioning technique for the analysis of deadlock prevention methods in bounded Petri nets. , 2010, , .		10
63	Approximate SEM identification of polynomial input-output models. , 2010, , .		3
64	LASSO-enhanced simulation error minimization method for NARX model selection. , 2010, , .		6
65	A geometric approach to air traffic complexity evaluation for strategic trajectory management. , 2010, , .		3
66	An iterative algorithm for simulation error based identification of polynomial input-output models using multi-step prediction. International Journal of Control, 2010, 83, 1442-1456.	1.2	12
67	A pseudo-multirate implementation of digital systems for improved performance. , 2010, , .		1
68	Adaptive model selection for polynomial NARX models. IET Control Theory and Applications, 2010, 4, 2693-2706.	1.2	15
69	Active noise control of impulsive noise using online estimation of an alpha-stable model. , 2010, , .		5
70	A multirate autotuning PI with improved static performance. , 2009, , .		1
71	Forecasting peak air pollution levels using NARX models. Engineering Applications of Artificial Intelligence, 2009, 22, 593-602.	4.3	120
72	A resource decoupling approach for deadlock prevention in FMS. International Journal of Advanced Manufacturing Technology, 2009, 40, 157-170.	1.5	30

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73	Real-time identification of tire-road friction conditions. IET Control Theory and Applications, 2009, 3, 891-906.	1.2	99
74	Adaptive temperature control of a household refrigerator. , 2009, , .		9
75	Efficient deadlock prevention in Petri nets through the generation of selected siphons. , 2009, , .		1
76	Nonlinear Active Noise Control using NARX model structure selection. , 2009, , .		5
77	Combined Siphon and Marking Generation for Deadlock Prevention in Petri Nets. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2009, 39, 650-661.	3.4	162
78	Polynomial NARX Model Identification: a Wiener-Hammerstein Benchmark. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 1074-1079.	0.4	9
79	Simulation Error Minimization-Based Identification of Polynomial Input-Output Recursive Models. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 1393-1398.	0.4	4
80	Jordan recurrent neural network versus IHACRES in modelling daily streamflows. Journal of Hydrology, 2008, 362, 291-307.	2.3	65
81	Selective Siphon Control for Deadlock Prevention in Petri Nets. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2008, 38, 1337-1348.	3.4	220
82	Real-time identification of tire-road friction conditions. , 2008, , .		15
83	Modeling and Control of Fluid Transportation Operations in Production Plants With Petri Nets. IEEE Transactions on Control Systems Technology, 2008, 16, 1090-1098.	3.2	18
84	Closed- versus open-loop active vibration control in the presence of finite precision arithmetic. , 2008, , .		1
85	Some convergence properties of multi-step prediction error identification criteria. , 2008, , .		11
86	Forecasting Daily Streamflows Using NARMAX Models: How Disturbances May Affect Model Performance. , 2008, , .		1
87	Simulation error minimisation methods for NARX model identification. International Journal of Modelling, Identification and Control, 2008, 3, 392.	0.2	34
88	NARX model identification with error filtering. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 2726-2731.	0.4	5
89	Adaptive temperature control in a freezer with on-off actuation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 15439-15444.	0.4	5
90	FPGA-based implementation of an active vibration controller. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 5077-5082.	0.4	6

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91	Finite-precision implementation issues in narrowband active control. , 2007, , .		4
92	An Incremental Petri Net-Based Approach to the Modeling of Production Sequences in Manufacturing Systems. IEEE Transactions on Automation Science and Engineering, 2007, 4, 424-434.	3.4	12
93	On the parameterisation of simple process models for the autotuning of industrial regulators. Proceedings of the American Control Conference, 2007, , .	0.0	12
94	A cluster selection approach to polynomial NARX identification. Proceedings of the American Control Conference, 2007, , .	0.0	5
95	Non redundant siphon control in ordinary petri nets. , 2007, , .		1
96	Feedback and feedforward active vibration control schemes for a turbomolecular vacuum pump. , 2007, , .		5
97	Step response classification for model-based autotuning via polygonal curve approximation. Journal of Process Control, 2007, 17, 641-652.	1.7	6
98	Model structure selection based on polygonal curve approximation techniques. , 2006, , .		0
99	ON SAMPLING AND PREFILTERING IN NONLINEAR SYSTEM IDENTIFICATION. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 1009-1014.	0.4	0
100	A two-stage algorithm for structure identification of polynomial NARX models. , 2006, , .		10
101	Modelling and active vibration control of a turbomolecular vacuum pump. , 2006, , .		2
102	Vibration control of a turbomolecular vacuum pump using piezoelectric actuators. , 2006, , .		5
103	Modelling and active vibration control of a turbomolecular vacuum pump. , 2006, , .		4
104	CONTROL-ORIENTED NARX MODELING OF MAGNETO-RHEOLOGICAL DAMPERS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 536-541.	0.4	1
105	ON THE ROLE OF PRE-FILTERING IN NONLINEAR SYSTEM IDENTIFICATION. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 791-796.	0.4	2
106	ESTIMATION OF NOX EMISSIONS IN THERMAL POWER PLANTS USING ENG-GENES NEURAL NETWORKS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 115-120.	0.4	7
107	On the role of prefiltering in nonlinear system identification. IEEE Transactions on Automatic Control, 2005, 50, 1597-1602.	3.6	24
108	Enumeration Algorithms for Minimal Siphons in Petri Nets Based on Place Constraints. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2005, 35, 844-854.	3.4	51

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109	Model-based PID autotuning enhanced by neural structural identification. , 2004, , .		2
110	Nonlinear modeling of NO/sub x/ emission in a coal-fired power generation plant. , 2004, , .		3
111	Model Classification Applied to the Autotuning of Industrial Proportional~Integral~Derivative Regulators. Industrial & Engineering Chemistry Research, 2004, 43, 6787-6796.	1.8	6
112	Automatic synthesis of multiple place resource models with Petri nets. , 2004, , .		3
113	Modular design and implementation of a logic control system for a batch process. Computers and Chemical Engineering, 2003, 27, 983-996.	2.0	16
114	An identification algorithm for polynomial NARX models based on simulation error minimization. International Journal of Control, 2003, 76, 1767-1781.	1.2	188
115	Structure selection for polynomial NARX models based on simulation error minimization. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 357-362.	0.4	1
116	A pruning method for the identification of polynomial NARMAX models. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 1071-1076.	0.4	10
117	NARX-based technique for the modelling of magneto-rheological damping devices. Smart Materials and Structures, 2002, 11, 79-88.	1.8	49
118	Front-tracking centralized motor control in a paper-making process. Control Engineering Practice, 2002, 10, 1111-1125.	3.2	5
119	Minimising production costs in generation and cogeneration plants. Control Engineering Practice, 2001, 9, 283-295.	3.2	9
120	SEISMIC BEHAVIOUR OF BUTTRESS DAMS: NON-LINEAR MODELLING OF A DAMAGED BUTTRESS BASED ON ARX/NARX MODELS. Journal of Sound and Vibration, 2001, 239, 405-422.	2.1	22
121	Estimation of NOx Emissions in Thermal Power Plants Using Neural Networks. Journal of Engineering for Gas Turbines and Power, 2001, 123, 465-471.	0.5	32
122	HARMONIC ANALYSIS OF NON-LINEAR STRUCTURES BY MEANS OF GENERALISED FREQUENCY RESPONSE FUNCTIONS COUPLED WITH NARX MODELS. Mechanical Systems and Signal Processing, 2000, 14, 243-265.	4.4	18
123	Steady-State off-set Error Rejection in Neural Network-Based Control Systems. Intelligent Automation and Soft Computing, 2000, 6, 147-157.	1.6	1
124	A comparative performance analysis of deadlock avoidance control algorithms for FMS. Journal of Intelligent Manufacturing, 1999, 10, 569-585.	4.4	14
125	Neural implementation of GMV control schemes based on affine input/output models. IET Control Theory and Applications, 1997, 144, 521-530.	1.7	12
126	Nonlinear identification and control of a heat exchanger: A neural network approach. Journal of the Franklin Institute, 1997, 334, 135-153.	1.9	70

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127	Model-specific autotuning of classical regulators: A neural approach to structural identification. Control Engineering Practice, 1996, 4, 1381-1391.	3.2	15
128	GMV technique for nonlinear control with neural networks. IET Control Theory and Applications, 1994, 141, 57-69.	1.7	31
129	Modeling and control of transporting systems in batch processes with multiple aggregated resources. , 0, , .		2
130	Characterization of minimal and basis siphons with predicate logic and binary programming. , 0, , .		5
131	Long-range nonlinear prediction: a case study. , 0, , .		5
132	A Modular Approach for Deadlock Avoidance in FMS. , 0, , .		3
133	An incremental petri net approach to production sequence modeling. , 0, , .		0