

Michael Nikolaou

List of Publications by Year in descending order

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63
papers

1,854
citations

331670

21
h-index

276875

41
g-index

67
all docs

67
docs citations

67
times ranked

1326
citing authors

#	ARTICLE	IF	CITATIONS
1	Chance-constrained model predictive control. <i>AICHE Journal</i> , 1999, 45, 1743-1752.	3.6	270
2	MPC: Current practice and challenges. <i>Control Engineering Practice</i> , 2012, 20, 328-342.	5.5	230
3	Robust stability analysis of constrained l_1 -norm model predictive control. <i>AICHE Journal</i> , 1993, 39, 1954-1965.	3.6	135
4	New approach to constrained predictive control with simultaneous model identification. <i>AICHE Journal</i> , 1996, 42, 2857-2868.	3.6	102
5	Model predictive controllers: A critical synthesis of theory and industrial needs. <i>Advances in Chemical Engineering</i> , 2001, 26, 131-204.	0.9	67
6	Simultaneous Constrained Model Predictive Control and Identification of DARX Processes. <i>Automatica</i> , 1998, 34, 1521-1530.	5.0	58
7	Design of robust constrained model-predictive controllers with volterra series. <i>AICHE Journal</i> , 1995, 41, 2098-2107.	3.6	53
8	Dynamic process modeling with recurrent neural networks. <i>AICHE Journal</i> , 1993, 39, 1654-1667.	3.6	52
9	Pharmacodynamic Modeling of Aminoglycosides against <i>Pseudomonas aeruginosa</i> and <i>Acinetobacter baumannii</i> : Identifying Dosing Regimens To Suppress Resistance Development. <i>Antimicrobial Agents and Chemotherapy</i> , 2008, 52, 3987-3993.	3.2	52
10	Self-Learning Reservoir Management. <i>SPE Reservoir Evaluation and Engineering</i> , 2005, 8, 534-547.	1.8	51
11	FIR model identification: Parsimony through kernel compression with wavelets. <i>AICHE Journal</i> , 1998, 44, 141-150.	3.6	48
12	Linear control of nonlinear systems: Interplay between nonlinearity and feedback. <i>AICHE Journal</i> , 2002, 48, 1957-1980.	3.6	47
13	A New Modeling Approach to the Effect of Antimicrobial Agents on Heterogeneous Microbial Populations. <i>Journal of Mathematical Biology</i> , 2006, 52, 154-182.	1.9	43
14	Evaluation of control methods for drilling operations with unexpected gas influx. <i>Journal of Process Control</i> , 2013, 23, 306-316.	3.3	43
15	Saccharification, fermentation, and protein recovery from low-temperature AFEX-treated coastal bermudagrass. <i>Biotechnology and Bioengineering</i> , 1994, 44, 1122-1131.	3.3	36
16	Identification test design for multivariable model-based control: An industrial perspective. <i>Control Engineering Practice</i> , 2014, 22, 165-180.	5.5	36
17	Performance bounds for robust quadratic dynamic matrix control with end condition. <i>AICHE Journal</i> , 1995, 41, 2083-2097.	3.6	32
18	A Novel Approach to Pharmacodynamic Assessment of Antimicrobial Agents: New Insights to Dosing Regimen Design. <i>PLoS Computational Biology</i> , 2011, 7, e1001043.	3.2	32

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19	Quantitative Assessment of Combination Antimicrobial Therapy against Multidrug-Resistant <i>Acinetobacter baumannii</i> . <i>Antimicrobial Agents and Chemotherapy</i> , 2008, 52, 2898-2904.	3.2	31
20	Control of nonlinear dynamical systems modeled by recurrent neural networks. <i>AIChE Journal</i> , 1993, 39, 1890-1894.	3.6	29
21	When is Nonlinear Dynamic Modeling Necessary?. , 1993, , .		23
22	Effect of on-line optimization techniques on model predictive control and identification (MPC). <i>Computers and Chemical Engineering</i> , 2002, 26, 1241-1252.	3.8	22
23	Input design for model order determination in subspace identification. <i>AIChE Journal</i> , 2003, 49, 2124-2132.	3.6	22
24	Modeling of Microbial Population Responses to Time-Periodic Concentrations of Antimicrobial Agents. <i>Annals of Biomedical Engineering</i> , 2007, 35, 1458-1470.	2.5	21
25	Multivariable system identification for integral controllability. <i>Automatica</i> , 2009, 45, 2194-2204.	5.0	19
26	NONLINEARITY QUANTIFICATION AND ITS APPLICATION TO NONLINEAR SYSTEM IDENTIFICATION. <i>Chemical Engineering Communications</i> , 1998, 166, 1-33.	2.6	18
27	Computer-aided process engineering in oil and gas production. <i>Computers and Chemical Engineering</i> , 2013, 51, 96-101.	3.8	18
28	Improvement of zonal isolation in horizontal shale gas wells: A data-driven model-based approach. <i>Journal of Natural Gas Science and Engineering</i> , 2017, 47, 101-113.	4.4	18
29	Optimizing pharmacokinetics/pharmacodynamics of β -lactam/ β -lactamase inhibitor combinations against high inocula of ESBL-producing bacteria. <i>Journal of Antimicrobial Chemotherapy</i> , 2021, 76, 179-183.	3.0	18
30	Mathematical Modeling To Characterize the Inoculum Effect. <i>Antimicrobial Agents and Chemotherapy</i> , 2010, 54, 4739-4743.	3.2	17
31	Integration of Computer-Aided High-Intensity Design with Reservoir Exploitation of Remote and Offshore Locations. , 2000, , .		15
32	Managed Pressure Drilling: A Multi-Level Control Approach. , 2010, , .		15
33	Automatic control of managed pressure drilling. , 2010, , .		15
34	Adaptive design of experiments for model order estimation in subspace identification. <i>Computers and Chemical Engineering</i> , 2017, 100, 119-138.	3.8	15
35	Technologies for oil and gas production: Present and future. <i>AIChE Journal</i> , 2011, 57, 1974-1982.	3.6	14
36	Optimizing the logistics of compressed natural gas transportation by marine vessels. <i>Journal of Natural Gas Science and Engineering</i> , 2010, 2, 1-20.	4.4	13

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37	Constrained MPC: A weak persistent excitation approach. <i>AIChE Journal</i> , 1997, 43, 2279-2288.	3.6	12
38	Drilling Automation: Presenting a Framework for Automated Operations. <i>SPE Drilling and Completion</i> , 2012, 27, 118-126.	1.6	12
39	Modelling biphasic killing of fluoroquinolones: guiding optimal dosing regimen design. <i>Journal of Antimicrobial Chemotherapy</i> , 2011, 66, 1079-1086.	3.0	10
40	The Lambert function should be in the engineering mathematical toolbox. <i>Computers and Chemical Engineering</i> , 2021, 148, 107259.	3.8	10
41	Design of robust nonsquare constrained model-predictive control. <i>AIChE Journal</i> , 1996, 42, 2582-2593.	3.6	9
42	Complexity in semiconductor manufacturing, activity of antimicrobial agents, and drilling of hydrocarbon wells: Common themes and case studies. <i>Computers and Chemical Engineering</i> , 2005, 29, 2266-2289.	3.8	7
43	Short-term Production Optimization by Automated Adaptive Modeling and Control. , 2008, , .		7
44	The Use of Wavelet Transforms in the Solution of Two-Phase Flow Problems. <i>SPE Journal</i> , 1996, 1, 169-178.	3.1	6
45	Debottlenecking level control for tanks in series. <i>Journal of Process Control</i> , 2014, 24, 158-171.	3.3	6
46	Modeling heterogeneous bacterial populations exposed to antibiotics: The logisticâ€”dynamics case. <i>AIChE Journal</i> , 2015, 61, 2385-2393.	3.6	6
47	Discerning in vitro pharmacodynamics from OD measurements: A model-based approach. <i>Computers and Chemical Engineering</i> , 2022, 158, 107617.	3.8	6
48	Simultaneous in vitro simulation of multiple antimicrobial agents with different elimination half-lives in a pre-clinical infection model. <i>Computers and Chemical Engineering</i> , 2021, 155, 107540.	3.8	4
49	Design of Experiments for Control-Relevant Multivariable Model Identification: An Overview of Some Basic Recent Developments. <i>Processes</i> , 2017, 5, 42.	2.8	3
50	Revisiting the standard for modeling the spread of infectious diseases. <i>Scientific Reports</i> , 2022, 12, 7077.	3.3	3
51	Control of a process with unmeasured disturbances that change its steady-state gain sign. <i>Journal of Process Control</i> , 2013, 23, 294-305.	3.3	2
52	Optimisation of Compressed Natural Gas Marine Transportation with Composite-Material Containers. , 2013, , .		2
53	Experiment design for controlâ€”relevant identification of partially known stable multivariable systems. <i>AIChE Journal</i> , 2016, 62, 2986-3001.	3.6	2
54	A data-driven modeling approach to zonal isolation of cemented gas wells. <i>Journal of Natural Gas Science and Engineering</i> , 2018, 59, 262-273.	4.4	2

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55	Enhanced Geothermal System Model for Flow through a Stimulated Rock Volume. , 2021, , .		2
56	Experimental Validation of a Mathematical Framework to Simulate Antibiotics with Distinct Half-Lives Concurrently in an In Vitro Model. Antibiotics, 2021, 10, 1256.	3.7	2
57	Ziegler and Nichols Meet Kermack and McKendrick: Parsimony in Dynamic Models for Epidemiology. Computers and Chemical Engineering, 2021, 157, 107615.	3.8	2
58	Development of a data-driven dynamic model for a plasma etching reactor. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2002, 20, 891.	1.6	1
59	Optimal Rules for Central Bank Interest Rates Subject to Zero Lower Bound. Economics, 2014, 8, .	0.6	1
60	Mathematical Model To Quantify the Effects of Risk Factors on Carbapenem-Resistant Acinetobacter baumannii. Antimicrobial Agents and Chemotherapy, 2014, 58, 5239-5244.	3.2	1
61	Ensuring integral controllability for robust multivariable control. Computers and Chemical Engineering, 2016, 92, 172-179.	3.8	1
62	Combating Microbial Resistance to Antimicrobial Agents through Dosing Regimen Optimization. Engineering and Management Innovation, 2008, , .	0.1	0
63	Establishing Performance Targets for Model Predictive Control Systems through off-line Optimization. , 1991, , .		0