

Radoslav Paulen

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

91 papers	490 citations	13 h-index	19 g-index
106 ext. papers	612 ext. citations	1.9 avg, IF	4.19 L-index

#	Paper	IF	Citations
91	Set-Theoretic Approaches in Analysis, Estimation and Control of Nonlinear Systems. <i>IFAC-PapersOnLine</i> , 2015 , 48, 981-995	0.7	44
90	Optimal feeding strategy of diafiltration buffer in batch membrane processes. <i>Journal of Membrane Science</i> , 2012 , 411-412, 160-172	9.6	32
89	Improving scenario decomposition algorithms for robust nonlinear model predictive control. <i>Computers and Chemical Engineering</i> , 2015 , 79, 30-45	4	31
88	Model-based design of optimal experiments for nonlinear systems in the context of guaranteed parameter estimation. <i>Computers and Chemical Engineering</i> , 2017 , 99, 198-213	4	30
87	Minimizing the process time for ultrafiltration/diafiltration under gel polarization conditions. <i>Journal of Membrane Science</i> , 2011 , 380, 148-154	9.6	26
86	Dual robust nonlinear model predictive control: A multi-stage approach. <i>Journal of Process Control</i> , 2018 , 72, 39-51	3.9	24
85	Process optimization of diafiltration with time-dependent water adding for albumin production. <i>Chemical Engineering and Processing: Process Intensification</i> , 2011 , 50, 815-821	3.7	21
84	Guaranteed parameter estimation of non-linear dynamic systems using high-order bounding techniques with domain and CPU-time reduction strategies. <i>IMA Journal of Mathematical Control and Information</i> , 2016 , 33, 563-587	1.1	20
83	Core Research and Innovation Areas in Cyber-Physical Systems of Systems. <i>Lecture Notes in Computer Science</i> , 2015 , 40-55	0.9	19
82	Optimal resource allocation in industrial complexes by distributed optimization and dynamic pricing. <i>Automatisierungstechnik</i> , 2016 , 64, 428-442	0.8	19
81	Multi-stage Nonlinear Model Predictive Control with verified robust constraint satisfaction 2014 ,		18
80	Economically optimal batch diafiltration via analytical multi-objective optimal control. <i>Journal of Process Control</i> , 2015 , 28, 73-82	3.9	16
79	Robust Nonlinear Model Predictive Control with Reduction of Uncertainty via Robust Optimal Experiment Design. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2014 , 47, 1904-1909		16
78	Optimal balancing of temporal and buffer costs for ultrafiltration/diafiltration processes under limiting flux conditions. <i>Journal of Membrane Science</i> , 2013 , 444, 87-95	9.6	10
77	Time-optimal control of diafiltration processes in the presence of membrane fouling. <i>Computers and Chemical Engineering</i> , 2016 , 91, 343-351	4	10
76	Set-membership nonlinear regression approach to parameter estimation. <i>Journal of Process Control</i> , 2018 , 70, 80-95	3.9	9
75	Towards dual robust nonlinear model predictive control: A multi-stage approach 2015 ,		8

74	Trends in preparing cyber-physical systems engineers. <i>Cyber-Physical Systems</i> , 2019 , 5, 65-91	1.1	7
73	Time-optimal operation of multi-component batch diafiltration. <i>Computers and Chemical Engineering</i> , 2015 , 83, 131-138	4	7
72	Market-Based Coordination of Shared Resources in Cyber-physical Production Sites. <i>Chemie-Ingenieur-Technik</i> , 2017 , 89, 636-644	0.8	7
71	Implementation of optimal strategy to economically improve batch membrane separation. <i>Journal of Process Control</i> , 2019 , 76, 155-164	3.9	6
70	Robust nonlinear model predictive control with reduction of uncertainty via dual control 2017 ,		6
69	Guaranteed parameter estimation in nonlinear dynamic systems using improved bounding techniques 2013 ,		6
68	Bayesian Approach to Probabilistic Design Space Characterization: A Nested Sampling Strategy. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 2396-2408	3.9	6
67	Tube-enhanced multi-stage model predictive control for flexible robust control of constrained linear systems with additive and parametric uncertainties. <i>International Journal of Robust and Nonlinear Control</i> , 2021 , 31, 4458-4487	3.6	6
66	Modeling and optimal operation of batch closed-loop diafiltration processes. <i>Chemical Engineering Research and Design</i> , 2017 , 122, 198-210	5.5	4
65	Optimal experiment design in nonlinear parameter estimation with exact confidence regions. <i>Journal of Process Control</i> , 2019 , 83, 187-195	3.9	4
64	Time-Optimal Control and Parameter Estimation of Diafiltration Processes in the Presence of Membrane Fouling. <i>IFAC-PapersOnLine</i> , 2016 , 49, 242-247	0.7	4
63	Dynamic real-time optimization of batch processes using Pontryagin's minimum principle and set-membership adaptation. <i>Computers and Chemical Engineering</i> , 2019 , 128, 488-495	4	4
62	An efficient distributed algorithm for multi-stage robust nonlinear predictive control 2015 ,		4
61	Effective recursive parallelotopic bounding for robust output-feedback control. <i>IFAC-PapersOnLine</i> , 2018 , 51, 1032-1037	0.7	4
60	Robust Dual Multi-stage NMPC using Guaranteed Parameter Estimation. <i>IFAC-PapersOnLine</i> , 2018 , 51, 72-77	0.7	4
59	Adaptive pricing for optimal resource allocation in industrial production sites. <i>IFAC-PapersOnLine</i> , 2017 , 50, 12446-12451	0.7	3
58	Optimization-based Domain Reduction in Guaranteed Parameter Estimation of Nonlinear Dynamic Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2013 , 46, 564-569		3
57	Price Adjustment in Price-based Coordination Using Quadratic Approximation. <i>Computer Aided Chemical Engineering</i> , 2016 , 193-198	0.6	3

56	Optimal design of dynamic experiments for guaranteed parameter estimation 2016 ,		3
55	A Combined Multi-stage and Tube-based MPC Scheme for Constrained Linear Systems. <i>IFAC-PapersOnLine</i> , 2018 , 51, 481-486	0.7	3
54	Robust multi-stage model-based design of optimal experiments for nonlinear estimation. <i>Computers and Chemical Engineering</i> , 2021 , 155, 107499	4	3
53	Membrane Processes. <i>Advances in Industrial Control</i> , 2016 , 1-25	0.3	2
52	Convex Enclosures for Constrained Reachability Tubes. <i>IFAC-PapersOnLine</i> , 2019 , 52, 118-123	0.7	2
51	Optimal Operation of Batch Membrane Processes. <i>Advances in Industrial Control</i> , 2016 ,	0.3	2
50	Analysis of optimal operation of a fed-batch emulsion copolymerization reactor used for production of particles with core-shell morphology. <i>Computers and Chemical Engineering</i> , 2014 , 66, 233-243	4	2
49	Multi-objective optimal control of ultrafiltration/diafiltration processes 2013 ,		2
48	Optimal Integrated Operation of a Sugar Production Plant. <i>Computer Aided Chemical Engineering</i> , 2014 , 33, 637-642	0.6	2
47	Adaptive multi-stage NMPC using sigma point principles 2020 ,		2
46	A hierarchical coordination approach to the optimal operation of a sugar crystallization process. <i>Computer Aided Chemical Engineering</i> , 2016 , 703-708	0.6	2
45	Data-based design of inferential sensors for petrochemical industry. <i>Computers and Chemical Engineering</i> , 2021 , 153, 107437	4	2
44	Solution of Optimal Control Problems. <i>Advances in Industrial Control</i> , 2016 , 37-56	0.3	1
43	Moving-horizon Guaranteed Parameter Estimation. <i>IFAC-PapersOnLine</i> , 2019 , 52, 112-117	0.7	1
42	Effective Recursive Set-membership State Estimation for Robust Linear MPC. <i>IFAC-PapersOnLine</i> , 2019 , 52, 486-491	0.7	1
41	Efficient robust nonlinear model predictive control via approximate multi-stage programming: A neural networks based approach. <i>Computer Aided Chemical Engineering</i> , 2019 , 1261-1266	0.6	1
40	Time-Optimal Control of Batch Multi-Component Diafiltration Processes. <i>Computer Aided Chemical Engineering</i> , 2014 , 553-558	0.6	1
39	Time-optimal Diafiltration in the Presence of Membrane Fouling. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2014 , 47, 4897-4902		1

38	Time-Optimal Operation of Membrane Processes in the Presence of Fouling with Set-membership Parameter Estimation. <i>IFAC-PapersOnLine</i> , 2017 , 50, 4690-4695	0.7	1
37	Robust model-based design of experiments for guaranteed parameter estimation. <i>Computer Aided Chemical Engineering</i> , 2017 , 40, 1639-1644	0.6	1
36	Optimal operation of nanofilter based diafiltration processes using experimental permeation models 2017 ,		1
35	Nested Sampling Approach to Set-membership Estimation. <i>IFAC-PapersOnLine</i> , 2020 , 53, 7228-7233	0.7	1
34	Dual multi-stage NMPC using sigma point principles. <i>IFAC-PapersOnLine</i> , 2020 , 53, 11243-11250	0.7	1
33	Enclosing the Reachable Set of Parametric ODEs using Taylor Models and Ellipsoidal Calculus. <i>Computer Aided Chemical Engineering</i> , 2013 , 32, 979-984	0.6	1
32	Time-optimal Operation of Diafiltration Processes in the Presence of Fouling. <i>Computer Aided Chemical Engineering</i> , 2015 , 1577-1582	0.6	1
31	Dynamic Real-time Optimization of Batch Membrane Processes using Pontryagin's Minimum Principle. <i>Computer Aided Chemical Engineering</i> , 2018 , 43, 1045-1050	0.6	1
30	Advanced Process Control of an Industrial Depropanizer Column using Data-based Inferential Sensors. <i>Computer Aided Chemical Engineering</i> , 2020 , 48, 1213-1218	0.6	1
29	Nested Sampling Strategy for Bayesian Design Space Characterization. <i>Computer Aided Chemical Engineering</i> , 2020 , 1957-1962	0.6	1
28	Robust Multi-Stage Nonlinear Model Predictive Control Using Sigma Points. <i>Processes</i> , 2020 , 8, 851	2.9	1
27	Estimation of membrane fouling parameters for concentrating lactose using nanofiltration. <i>Computer Aided Chemical Engineering</i> , 2016 , 151-156	0.6	1
26	Combined Estimation and Optimal Control of Batch Membrane Processes. <i>Processes</i> , 2016 , 4, 43	2.9	1
25	Shared resource allocation in an integrated petrochemical site by price-based coordination using quadratic approximation 2016 ,		1
24	Dual robust control of batch processes based on optimality-conditions parameterization. <i>IFAC-PapersOnLine</i> , 2018 , 51, 774-779	0.7	1
23	Experimental validation and comparison of time-optimal and industrial strategy for membrane separation process. <i>IFAC-PapersOnLine</i> , 2018 , 51, 741-746	0.7	1
22	Model-Based Optimal Experiment Design for Nonlinear Parameter Estimation Using Exact Confidence Regions * **This research was funded by the European Commission under grant agreement number 291458 (ERC Advanced Investigator Grant MOBOCON). <i>IFAC-PapersOnLine</i> , 2017 , 50, 13760-13765	0.7	0
21	Time-optimal batch diafiltration*. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 804-809		0

20	Experimental Real Time Optimization of a Continuous Membrane Separation Plant. <i>IFAC-PapersOnLine</i> , 2020 , 53, 11786-11793	0.7	0
19	Optimal Control Problem. <i>Advances in Industrial Control</i> , 2016 , 27-35	0.3	
18	Operation at Limiting Flux. <i>Advances in Industrial Control</i> , 2016 , 57-82	0.3	
17	Perfect Rejection of Both Solutes. <i>Advances in Industrial Control</i> , 2016 , 83-107	0.3	
16	Perfect Rejection of Macro-Solute. <i>Advances in Industrial Control</i> , 2016 , 109-128	0.3	
15	Constant Incomplete Rejection of Solutes. <i>Advances in Industrial Control</i> , 2016 , 129-141	0.3	
14	General Membrane Model. <i>Advances in Industrial Control</i> , 2016 , 143-151	0.3	
13	Conclusions and Future Research. <i>Advances in Industrial Control</i> , 2016 , 153-155	0.3	
12	Interval Superposition Arithmetic for Guaranteed Parameter Estimation. <i>IFAC-PapersOnLine</i> , 2019 , 52, 574-579	0.7	
11	Dual-Control-Based Approach to Batch Process Operation under Uncertainty Based on Optimality-Conditions Parametrization. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 13508-13516	3.9	
10	Optimal dynamic experiment design for guaranteed parameter estimation. <i>Computer Aided Chemical Engineering</i> , 2016 , 38, 757-762	0.6	
9	Comments on Diafiltration under condition of quasi-constant membrane surface concentration□ by R. Field [J. Membr. Sci. 383 (10) (2011) 301B02]. <i>Journal of Membrane Science</i> , 2012 , 390-391, 285	9.6	
8	Dynamic optimization of semi-batch emulsion co-polymerization reactor for styrene/butyl acrylate in the presence of a chain transfer agent. <i>Computer Aided Chemical Engineering</i> , 2013 , 32, 721-726	0.6	
7	Two-layer Hierarchical Predictive Control via Negotiation of Active Constraints. <i>IFAC-PapersOnLine</i> , 2015 , 48, 404-409	0.7	
6	Robust output feedback NMPC with guaranteed constraint satisfaction. <i>IFAC-PapersOnLine</i> , 2015 , 48, 326-331	0.7	
5	Optimal Control of Diafiltration Process for Albumin Production. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2011 , 44, 14007-14012		
4	Set-Based State Estimation: A Polytopic Approach. <i>IFAC-PapersOnLine</i> , 2020 , 53, 11277-11282	0.7	
3	Multi-stage NMPC using sigma point principles. <i>IFAC-PapersOnLine</i> , 2020 , 53, 386-391	0.7	

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| 2 | Data-based Industrial Soft-sensor Design via Optimal Subset Selection. <i>Computer Aided Chemical Engineering</i> , 2021 , 1247-1252 | 0.6 |
| 1 | Set-membership Estimation using Ellipsoidal Ensembles. <i>IFAC-PapersOnLine</i> , 2021 , 54, 596-601 | 0.7 |