

# Rolf Findeisen

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6756007/publications.pdf>

Version: 2024-02-01

291  
papers

6,297  
citations

172457

29  
h-index

106344

65  
g-index

294  
all docs

294  
docs citations

294  
times ranked

3897  
citing authors

#	ARTICLE	IF	CITATIONS
1	Real-time optimization and nonlinear model predictive control of processes governed by differential-algebraic equations. <i>Journal of Process Control</i> , 2002, 12, 577-585.	3.3	573
2	Robust output feedback model predictive control of constrained linear systems. <i>Automatica</i> , 2006, 42, 1217-1222.	5.0	398
3	State and Output Feedback Nonlinear Model Predictive Control: An Overview. <i>European Journal of Control</i> , 2003, 9, 190-206.	2.6	281
4	Electrochemical Model Based Observer Design for a Lithium-Ion Battery. <i>IEEE Transactions on Control Systems Technology</i> , 2013, 21, 289-301.	5.2	217
5	Robust output feedback model predictive control of constrained linear systems: Time varying case. <i>Automatica</i> , 2009, 45, 2082-2087.	5.0	178
6	Nominal stability of real-time iteration scheme for nonlinear model predictive control. <i>IET Control Theory and Applications</i> , 2005, 152, 296-308.	1.7	168
7	Homothetic tube model predictive control. <i>Automatica</i> , 2012, 48, 1631-1638.	5.0	151
8	Input design for guaranteed fault diagnosis using zonotopes. <i>Automatica</i> , 2014, 50, 1580-1589.	5.0	149
9	Review of Dynamic Models of Li-Ion Batteries for Diagnosis and Operation: A Review and Perspective. <i>Journal of the Electrochemical Society</i> , 2018, 165, A3656-A3673.	2.9	149
10	Stochastic nonlinear model predictive control with probabilistic constraints. , 2014, , .		138
11	Nonlinear Model Predictive Control for Constrained Output Path Following. <i>IEEE Transactions on Automatic Control</i> , 2016, 61, 1026-1039.	5.7	132
12	Parameterized Tube Model Predictive Control. <i>IEEE Transactions on Automatic Control</i> , 2012, 57, 2746-2761.	5.7	130
13	Optimal charging strategies in lithium-ion battery. , 2011, , .		116
14	Integrating Cellular Metabolism into a Multiscale Whole-Body Model. <i>PLoS Computational Biology</i> , 2012, 8, e1002750.	3.2	112
15	Implementation of Nonlinear Model Predictive Path-Following Control for an Industrial Robot. <i>IEEE Transactions on Control Systems Technology</i> , 2017, 25, 1505-1511.	5.2	110
16	Response to IL-6 trans- and IL-6 classic signalling is determined by the ratio of the IL-6 receptor $\hat{\pm}$ to gp130 expression: fusing experimental insights and dynamic modelling. <i>Cell Communication and Signaling</i> , 2019, 17, 46.	6.5	89
17	Investigation of the low frequency Warburg impedance of Li-ion cells by frequency domain measurements. <i>Journal of Energy Storage</i> , 2019, 21, 272-280.	8.1	86
18	Computational Delay in Nonlinear Model Predictive Control. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2004, 37, 427-432.	0.4	80

#	ARTICLE	IF	CITATIONS
19	Model predictive path-following for constrained nonlinear systems. , 2009, , .		74
20	Optimized FPGA Implementation of Model Predictive Control for Embedded Systems Using High-Level Synthesis Tool. IEEE Transactions on Industrial Informatics, 2018, 14, 137-145.	11.3	73
21	Output feedback stabilization of constrained systems with nonlinear predictive control. International Journal of Robust and Nonlinear Control, 2003, 13, 211-227.	3.7	63
22	Predictive control, embedded cyberphysical systems and systems of systems – A perspective. Annual Reviews in Control, 2016, 41, 193-207.	7.9	62
23	Event-based model predictive control for Networked Control Systems. , 2009, , .		58
24	Set-base dynamical parameter estimation and model invalidation for biochemical reaction networks. BMC Systems Biology, 2010, 4, 69.	3.0	58
25	A note on stability, robustness and performance of output feedback nonlinear model predictive control. Journal of Process Control, 2003, 13, 633-644.	3.3	51
26	State estimation of a reduced electrochemical model of a lithium-ion battery. , 2010, , .		45
27	An Efficient Algorithm for Nonlinear Model Predictive Control of Large-Scale Systems Part I: Description of the Method (Ein effizienter Algorithmus für die nichtlineare prädiktive Regelung) Tj ETQq1 1 0.784384 rgBT4@overlo		44
28	Fast predictive control of linear systems combining Nesterov's gradient method and the method of multipliers. , 2011, , .		43
29	Scenario-based Model Predictive Control: Recursive Feasibility and Stability. IFAC-PapersOnLine, 2015, 48, 50-56.	0.9	40
30	Online learning-based model predictive control with Gaussian process models and stability guarantees. International Journal of Robust and Nonlinear Control, 2021, 31, 8785-8812.	3.7	39
31	Implementation aspects of model predictive control for embedded systems. , 2012, , .		38
32	Active Fault Diagnosis for Nonlinear Systems with Probabilistic Uncertainties. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 7079-7084.	0.4	38
33	Heterogeneity reduces sensitivity of cell death for TNF-Stimuli. BMC Systems Biology, 2011, 5, 204.	3.0	37
34	Nonlinear Model Predictive Control of a Turbocharged Diesel Engine. , 2006, , .		37
35	Fast stochastic model predictive control of high-dimensional systems. , 2014, , .		36
36	ADMIT: a toolbox for guaranteed model invalidation, estimation and qualitative – quantitative modeling. Bioinformatics, 2012, 28, 1290-1291.	4.1	35

#	ARTICLE	IF	CITATIONS
37	&#x03BC;AO-MPC: A free code generation tool for embedded real-time linear model predictive control. , 2013, , .		35
38	Contract-based Predictive Control of Distributed Systems with Plug and Play Capabilities. IFAC-PapersOnLine, 2015, 48, 205-211.	0.9	35
39	Stabilizing Nonlinear Predictive Control over Nondeterministic Communication Networks. Lecture Notes in Control and Information Sciences, 2009, , 167-179.	1.0	33
40	Real-Time Optimization for Large Scale Processes: Nonlinear Model Predictive Control of a High Purity Distillation Column. , 2001, , 363-383.		32
41	Quantitative imaging of electric surface potentials with single-atom sensitivity. Nature Materials, 2019, 18, 853-859.	27.5	31
42	Robust output feedback MPC for uncertain linear systems with reduced conservatism. IFAC-PapersOnLine, 2017, 50, 10685-10690.	0.9	30
43	Modeling, parameter identification and model-based control of a lightweight robotic manipulator. , 2013, , .		29
44	Robustness analysis, prediction, and estimation for uncertain biochemical networks: An overview. Journal of Process Control, 2016, 42, 14-34.	3.3	29
45	Efficient output feedback nonlinear model predictive control. , 2002, , .		28
46	Model Predictive Control for Gust Load Alleviation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 27-32.	0.4	28
47	Constrained reachability and trajectory generation for flat systems. Automatica, 2014, 50, 1151-1159.	5.0	28
48	Practical set invariance for decentralized discrete time systems. , 2010, , .		27
49	Stability of Gaussian Process Learning Based Output Feedback Model Predictive Control. IFAC-PapersOnLine, 2018, 51, 455-461.	0.9	27
50	Nonlinear model predictive control of a turbocharged diesel engine. , 2006, , .		26
51	A model predictive control approach to trajectory tracking problems via time-varying level sets of Lyapunov functions. , 2011, , .		26
52	Design of active inputs for set-based fault diagnosis. , 2013, , .		26
53	Nonlinear Model Predictive Path-Following Control. Lecture Notes in Control and Information Sciences, 2009, , 335-343.	1.0	26
54	2. A Stabilizing Real-Time Implementation of Nonlinear Model Predictive Control. , 2007, , 25-52.		25

#	ARTICLE	IF	CITATIONS
55	Sampled-Data Nonlinear Model Predictive Control for Constrained Continuous Time Systems. Lecture Notes in Control and Information Sciences, 2007, , 207-235.	1.0	25
56	Towards a Sampled-Data Theory for Nonlinear Model Predictive Control. Lecture Notes in Control and Information Sciences, 0, , 295-311.	1.0	24
57	A Fast Gradient method for embedded linear predictive control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 1362-1367.	0.4	24
58	Passivity-Based Inverse Optimal Impulsive Control for Influenza Treatment in the Host. IEEE Transactions on Control Systems Technology, 2020, 28, 94-105.	5.2	24
59	Discrete-time robust model predictive control for continuous-time nonlinear systems. , 2015, , .		23
60	Nonlinear predictive control for setpoint families. , 2000, , .		22
61	Finite time convergent observers for nonlinear systems. , 0, , .		22
62	Robust output feedback predictive control with self-triggered measurements. , 2015, , .		22
63	Results Towards Identifiability Properties of Biochemical Reaction Networks. , 2006, , .		21
64	Combining qualitative information and semi-quantitative data for guaranteed invalidation of biochemical network models. International Journal of Robust and Nonlinear Control, 2012, 22, 1157-1173.	3.7	21
65	Comments on Truncation Errors for Polynomial Chaos Expansions. , 2018, 2, 169-174.		21
66	Nonlinear Predictive Control for Trajectory Tracking and Path Following: An Introduction and Perspective. Control Engineering, 2019, , 169-198.	0.3	20
67	A set-based framework for coherent model invalidation and parameter estimation of discrete time nonlinear systems. , 2009, , .		19
68	Fully Parameterized Tube MPC. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 197-202.	0.4	19
69	Detection and isolation of parametric faults in hydraulic pumps using a set-based approach and quantitative-qualitative fault specifications. Control Engineering Practice, 2015, 40, 61-70.	5.5	19
70	Ein effizienter Algorithmus für die nichtlineare prädiktive Regelung großer Systeme Teil II: Experimentelle Erprobung an einer Destillationskolonne (An Efficient Algorithm for Nonlinear Model) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 Automatisierungstechnik, 2003, 51, 22-29.	9.8	18
71	Predictive path-following control: Concept and implementation for an industrial robot. , 2013, , .		18
72	Optimal Experimental Design for Probabilistic Model Discrimination Using Polynomial Chaos. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 4103-4109.	0.4	18

#	ARTICLE	IF	CITATIONS
73	Robust Nonlinear Model Predictive Control with Constraint Satisfaction: A Relaxation-based Approach. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 11073-11079.	0.4	18
74	Stability of NMPC with cyclic horizons. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 809-814.	0.4	17
75	Adaptive predictive control of bioprocesses with constraint-based modeling and estimation. Computers and Chemical Engineering, 2020, 135, 106744.	3.8	17
76	OUTPUT FEEDBACK NONLINEAR PREDICTIVE CONTROL -A SEPARATION PRINCIPLE APPROACH. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 201-206.	0.4	16
77	Robustness of Prediction Based Delay Compensation for Nonlinear Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 203-208.	0.4	15
78	Efficient Polynomial-Time Outer Bounds on State Trajectories for Uncertain Polynomial Systems Using Skewed Structured Singular Values. IEEE Transactions on Automatic Control, 2014, 59, 3063-3068.	5.7	15
79	A Stochastic Model Predictive Controller for Systems with Unreliable Communications. IFAC-PapersOnLine, 2015, 48, 57-64.	0.9	15
80	The quasi-infinite horizon approach to nonlinear model predictive control. , 2003, , 89-108.		15
81	Nonlinear Model Predictive Control for Indexâ€”one DAE Systems. , 2000, , 145-161.		15
82	Mathematical Modeling and Analysis of Force Induced Bone Growth. , 2006, 2006, 3154-7.		14
83	Advanced control of a reactive distillation column. Computer Aided Chemical Engineering, 2007, 24, 805-810.	0.5	14
84	Compensating network delays and information loss by predictive control methods. , 2009, , .		14
85	Guaranteed steady state bounds for uncertain (bio-)chemical processes using infeasibility certificates. Journal of Process Control, 2010, 20, 1076-1083.	3.3	14
86	Optimal Exact Path-Following for Constrained Differentially Flat Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 9875-9880.	0.4	14
87	Cooperative Distributed MPC using the Alternating Direction Multiplier Method. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 445-450.	0.4	14
88	Improved Design of Nonlinear Model Predictive Controllers. IFAC-PapersOnLine, 2015, 48, 254-259.	0.9	14
89	Efficient stochastic model predictive control based on polynomial chaos expansions for embedded applications. , 2015, , .		14
90	Robust output feedback model predictive control using reduced order models. IFAC-PapersOnLine, 2015, 48, 1008-1014.	0.9	14

#	ARTICLE	IF	CITATIONS
91	Force Feedback and Path Following using Predictive Control: Concept and Application to a Lightweight Robot. IFAC-PapersOnLine, 2017, 50, 9827-9832.	0.9	14
92	Model Predictive Control for Aircraft Load Alleviation: Opportunities and Challenges. , 2018, , .		14
93	Combined Predictive Path Following and Admittance Control. , 2018, , .		14
94	Real-time feasibility of nonlinear predictive control for large scale processes-a case study. , 2000, , .		13
95	Model predictive control of linear continuous time singular systems subject to input constraints. , 2004, , .		13
96	Parameter estimation in kinetic reaction models using nonlinear observers facilitated by model extensions. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 313-318.	0.4	13
97	Event-based reduced-attention predictive control for nonlinear uncertain systems. , 2010, , .		12
98	Guaranteed active fault diagnosis for uncertain nonlinear systems. , 2014, , .		12
99	Towards adaptive health-aware charging of Li-ion batteries: A real-time predictive control approach using first-principles models. , 2017, , .		12
100	Multi-Mode Learning Supported Model Predictive Control with Guarantees. IFAC-PapersOnLine, 2018, 51, 517-522.	0.9	12
101	Fast, inexpensive, and reliable HPLC method to determine monomer fractions in poly(3-hydroxybutyrate-co-3-hydroxyvalerate). Applied Microbiology and Biotechnology, 2021, 105, 4743-4749.	3.6	12
102	Constrained Gaussian Process Learning for Model Predictive Control. IFAC-PapersOnLine, 2020, 53, 971-976.	0.9	12
103	Optimization strategies for a MMA polymerization reactor. Computers and Chemical Engineering, 2007, 31, 281-291.	3.8	11
104	Observability based parameter identifiability for biochemical reaction networks. , 2008, , .		11
105	Complete Fault Diagnosis Of Uncertain Polynomial Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 127-132.	0.4	11
106	Optimal and optimal-linear control over lossy, distributed networks. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 13239-13244.	0.4	11
107	Parallel solution of model predictive control using the alternating direction multiplier method. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 369-374.	0.4	11
108	Identification of Growth Phases and Influencing Factors in Cultivations with AGE1.HN Cells Using Set-Based Methods. PLoS ONE, 2013, 8, e68124.	2.5	11

#	ARTICLE	IF	CITATIONS
109	On self-triggered reduced-attention control for constrained systems. , 2014, , .		11
110	Combined eventâ€and selfâ€triggered control approach with guaranteed finiteâ€gain stability for uncertain linear systems. IET Control Theory and Applications, 2017, 11, 1674-1683.	2.1	11
111	Distributed Model Predictive Control Using Cooperative Contract Options. IFAC-PapersOnLine, 2018, 51, 448-454.	0.9	11
112	Fusing multiple time varying tubes for robust MPC. IFAC-PapersOnLine, 2020, 53, 7055-7062.	0.9	11
113	Learning References with Gaussian Processes in Model Predictive Control applied to Robot Assisted Surgery. , 2020, , .		11
114	On efficient predictive control of linear systems subject to quadratic constraints using condensed, structure-exploiting interior point methods. , 2013, , .		11
115	Nonlinear Model Predictive Control and Sum of Squares Techniques. , 2006, , 325-344.		10
116	Guaranteed Steady-State Bounds for Uncertain Chemical Processes. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 643-648.	0.4	10
117	Fault Diagnosis for Polynomial Hybrid Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 2755-2760.	0.4	10
118	Complete Diagnosability of Abrupt Faults Using Set-based Sensitivities. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 860-865.	0.4	10
119	Distributed Control of Interconnected Systems with Lossy Communication Networks. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 363-368.	0.4	10
120	Robustness Analysis, Prediction and Estimation for Uncertain Biochemical Networks. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 1-20.	0.4	10
121	Simple and efficient moving horizon estimation based on the fast gradient method. IFAC-PapersOnLine, 2015, 48, 428-433.	0.9	10
122	Eingebettete Optimierung in der Regelungstechnik â€ Grundlagen und Herausforderungen. Automatisierungstechnik, 2018, 66, 877-902.	0.8	10
123	Receding Horizon Control for Linear Periodic Time-Varying Systems Subject to Input Constraints. Lecture Notes in Control and Information Sciences, 2009, , 109-117.	1.0	10
124	MODEL PREDICTIVE CONTROL OF CONTINUOUS TIME NONLINEAR DIFFERENTIAL ALGEBRAIC SYSTEMS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 48-53.	0.4	9
125	Avoidance of Poorly Observable Trajectories: A Predictive Control Perspective. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 1952-1957.	0.4	9
126	Fast predictive control of linear, time-invariant systems using an algorithm based on the fast gradient method and augmented Lagrange multipliers. , 2011, , .		9



#	ARTICLE	IF	CITATIONS
127	Event-based NMPC for networked control systems over UDP-like communication channels. , 2011, , .		9
128	On stability of stochastic linear systems via polynomial chaos expansions. , 2017, , .		9
129	Computation and performance assessment of nonlinear model predictive control. , 0, , .		8
130	Stability of nonlinear model predictive control in the presence of errors due to numerical online optimization. , 0, , .		8
131	On the synchronization problem for the stabilization of networked control systems over nondeterministic networks. , 2009, , .		8
132	Constrained Output Path-Following for Nonlinear Systems Using Predictive Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 753-758.	0.4	8
133	Practical Robust Positive Invariance for Large-Scale Discrete Time Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 6425-6430.	0.4	8
134	Dissipativity-based Distributed Nonlinear Predictive Control for Cascaded Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 439-444.	0.4	8
135	Optimization-based Feedforward Path Following for Model Reference Adaptive Control of an Unmanned Helicopter. , 2013, , .		8
136	Model-based derivation, analysis and control of unstable microaerobic steady-states Considering <i>Rhodospirillum rubrum</i> as an example. Biotechnology and Bioengineering, 2014, 111, 734-747.	3.3	8
137	Output feedback MPC with send-on-delta measurements for uncertain systems. IFAC-PapersOnLine, 2016, 49, 145-150.	0.9	8
138	Model Predictive Control of a Fed-batch Bioreactor Based on Dynamic Metabolic-Genetic Network Models. IFAC-PapersOnLine, 2018, 51, 34-37.	0.9	8
139	Two-degree-of-freedom control combining machine learning and extremum seeking for fast scanning quantum dot microscopy. , 2018, , .		8
140	Multi-mode Model Predictive Control and Estimation for Uncertain Biotechnological Processes. IFAC-PapersOnLine, 2019, 52, 709-714.	0.9	8
141	Hierarchical Model Predictive Control for Autonomous Vehicle Area Coverage. IFAC-PapersOnLine, 2019, 52, 79-84.	0.9	8
142	Robust MPC with Reduced Conservatism Blending Multiples Tubes. , 2020, , .		8
143	Structured controller parameter tuning for power systems. Control Engineering Practice, 2020, 101, 104490.	5.5	8
144	Nonlinear observability and identifiability of single cells in battery packs. , 2013, , .		7

#	ARTICLE	IF	CITATIONS
145	Inner Approximations of Consistent Parameter Sets by Constraint Inversion and Mixed-Integer Programming. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 321-326.	0.4	7
146	Set-point tracking using distributed MPC. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 57-62.	0.4	7
147	Nonlinear model predictive missile control with a stabilising terminal constraint. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 457-462.	0.4	7
148	Controller Verification and Parametrization Subject to Quantitative and Qualitative Requirements. IFAC-PapersOnLine, 2015, 48, 1174-1179.	0.9	7
149	Exploiting models of different granularity in robust predictive control. , 2016, , .		7
150	Sampled-data, output feedback predictive control of uncertain, nonlinear systems. IFAC-PapersOnLine, 2016, 49, 47-52.	0.9	7
151	Efficiency and performance of embedded model predictive control for active vibration attenuation. , 2016, , .		7
152	A Set-Based Optimal Control Approach for Pharmacokinetic/Pharmacodynamic Drug Dosage Design. IFAC-PapersOnLine, 2016, 49, 797-802.	0.9	7
153	Control on a molecular scale: A perspective. , 2016, , .		7
154	Output feedback model predictive control with probabilistic uncertainties for linear systems. , 2016, , .		7
155	The Experimental Side of Parameter Estimation. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2016, , 127-154.	1.0	7
156	Low latency output feedback model predictive control for constrained linear systems. , 2017, , .		7
157	Contract-based Predictive Control for Modularity in Hierarchical Systems. IFAC-PapersOnLine, 2018, 51, 499-504.	0.9	7
158	Combined control and communication scheduling for constrained system using robust output feedback MPC. , 2019, , .		7
159	Towards nominal stability certification of deep learning-based controllers. , 2020, , .		7
160	Calculating the terminal region of NMPC for Lure systems via LMIs. , 2008, , .		6
161	Efficient polynomial-time outer bounds on state trajectories for uncertain polynomial systems using skewed structured singular values. , 2011, , .		6
162	Certifying Robustness of Separating Inputs and Outputs in Active Fault Diagnosis for Uncertain Nonlinear Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 837-842.	0.4	6

#	ARTICLE	IF	CITATIONS
163	Set-based state of charge estimation for lithium-ion batteries. , 2014, , .		6
164	Probabilistic and Set-based Model Invalidation and Estimation Using LMIs. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 4110-4115.	0.4	6
165	Stabilization of inexact MPC schemes. , 2014, , .		6
166	Activation of D2 autoreceptors alters cocaine-induced locomotion and slows down local field oscillations in the rat ventral tegmental area. Neuropharmacology, 2016, 108, 120-127.	4.1	6
167	Event-triggered actuator signal update using self-triggered sampled data for uncertain linear systems. , 2017, , .		6
168	Stability Certificates for Neural Network Learning-based Controllers using Robust Control Theory. , 2021, , .		6
169	On Disturbance Attenuation of Nonlinear Moving Horizon Control. , 2007, , 283-294.		6
170	Modelling Human Driving Behavior for Constrained Model Predictive Control in Mixed Traffic at Intersections. IFAC-PapersOnLine, 2020, 53, 14356-14362.	0.9	6
171	Contract-based Hierarchical Model Predictive Control and Planning for Autonomous Vehicle. IFAC-PapersOnLine, 2020, 53, 15758-15764.	0.9	6
172	Stabilization using sampled-data open-loop feedback - A nonlinear model predictive control perspective. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 579-584.	0.4	5
173	State Estimation for Repetitive Processes Using Iteratively Improving Moving Horizon Observers. , 0, , .		5
174	Robust suboptimal control over lossy networks using extended input schemes. , 2011, , .		5
175	Analysis and constrained control of nonlinear interconnected systems exploiting positively invariant family of sets. , 2013, , .		5
176	Estimation of consistent parameter sets for continuous-time nonlinear systems using occupation measures and LMI relaxations. , 2013, , .		5
177	On MPC based trajectory tracking. , 2014, , .		5
178	Improved Robust Decentralized MPC. , 2018, , .		5
179	Parameter Tuning and Optimal Design of Decentralized Structured Controllers for Power Oscillation Damping in Electrical Networks. , 2018, , .		5
180	Robust Static $\mathcal{H}_{\infty}$ Output-Feedback Control Using Polynomial Chaos. , 2018, , .		5

#	ARTICLE	IF	CITATIONS
181	Fast stochastic model predictive control of end-to-end continuous pharmaceutical manufacturing 1 1Financial support from Novartis is acknowledged.. Computer Aided Chemical Engineering, 2018, , 353-378.	0.5	5
182	Analysis of low frequency impedance hysteresis of Li-ion cells by time- and frequency domain measurements and its relation to the OCV hysteresis. Journal of Energy Storage, 2019, 26, 101000.	8.1	5
183	Improved Area Covering in Dynamic Environments by Nonlinear Model Predictive Path Following Control. IFAC-PapersOnLine, 2019, 52, 418-423.	0.9	5
184	Direct Force Feedback using Gaussian Process based Model Predictive Control. , 2020, , .		5
185	Maximizing batch fermentation efficiency by constrained model-based optimization and predictive control of adenosine triphosphate turnover. AICHE Journal, 2022, 68, .	3.6	5
186	Computational feasibility and performance of nonlinear model predictive control schemes. , 2001, , .		4
187	Model Predictive Control for Discrete Time Polynomial Control Systems: A Convex Approach. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 123-128.	0.4	4
188	Robustness Properties and Output Feedback of Optimization Based Sampled-data Open-loop Feedback. , 0, , .		4
189	Identifikation biochemischer Reaktionsnetzwerke: Ein beobachterbasierter Ansatz (Identification of) Tj ETQq1 1 0.784314 rgBT /Over 269-279.	0.8	4
190	Optimal Measurement Feedback Control of Finite-time Continuous Linear Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 15339-15344.	0.4	4
191	Predictive control for lure systems subject to constraints using LMIs. , 2009, , .		4
192	Influence of discretization errors on set-based parameter estimation. , 2010, , .		4
193	Outlier analysis in set-based estimation for nonlinear systems using convex relaxations. , 2013, , .		4
194	Guaranteed Set-based Controller Parameter Estimation for Nonlinear Systems – Magnetic Levitation Platform as a Case Study. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 4650-4655.	0.4	4
195	On the effect of enforcing stability in model predictive control for gust load alleviation. , 2015, , .		4
196	The impact of experimental data quality on computational systems biology and engineering. IFAC-PapersOnLine, 2016, 49, 140-146.	0.9	4
197	Coordinated tuning of synchronous generator controllers for power oscillation damping. , 2017, , .		4
198	Towards Optimal Tuning of Robust Output Feedback MPC. IFAC-PapersOnLine, 2018, 51, 134-140.	0.9	4

#	ARTICLE	IF	CITATIONS
199	On integral input-to-state stability of event-triggered control systems. , 2019, , .		4
200	Robust Control Theory Based Stability Certificates for Neural Network Approximated Nonlinear Model Predictive Control. IFAC-PapersOnLine, 2021, 54, 347-352.	0.9	4
201	Using genetic algorithm in robust nonlinear model predictive control. Computer Aided Chemical Engineering, 2001, 9, 711-716.	0.5	3
202	Output-feedback nonlinear model predictive control using high-gain observers in original coordinates. , 2003, , .		3
203	Ein prädiktiver Ansatz zur Lösung nichtlinearer Pfadverfolgungsprobleme unter BeschränkungenA Predictive Solution to Nonlinear Path-Following Problems Subject to Constraints. Automatisierungstechnik, 2009, 57, 386-394.	0.8	3
204	Prädiktive Regelung nichtlinearer Systeme unter asynchronen Mess- und StellsignalenNonlinear Predictive Control based on Asynchronous Measurement and Control Signals. Automatisierungstechnik, 2009, 57, 279-286.	0.8	3
205	Distributed and Networked Model Predictive Control. , 2014, , 111-167.		3
206	Mathematical Modelling and Sensitivity Analysis of Multipolar Radiofrequency Ablation in the Spine. IFAC-PapersOnLine, 2015, 48, 243-248.	0.9	3
207	A Two-level Approach for Fusing Early Signaling Events and Long Term Cellular Responses. IFAC-PapersOnLine, 2015, 48, 1228-1233.	0.9	3
208	Predictive Control in the Era of Networked Control and Communication - a Perspective. IFAC-PapersOnLine, 2015, 48, 322-331.	0.9	3
209	Self-triggered, prediction-based control of Lipschitz nonlinear systems. , 2015, , .		3
210	Parameter estimation for leukocyte dynamics after chemotherapy * *This research was supported by a research grant of the international Max Planck Research School (IMPRS) for Advanced Methods in Process and System Engineering (Magdeburg)and from the European Research Council via the Consolidator Grant MODEST-647573.. IFAC-PapersOnLine, 2016, 49, 44-49.	0.9	3
211	Mathematical 3D modelling and sensitivity analysis of multipolar radiofrequency ablation in the spine. Mathematical Biosciences, 2017, 284, 51-60.	1.9	3
212	Real time feasibility and performance of moving horizon estimation for Li-ion batteries based on first principles electrochemical models. , 2017, , .		3
213	Polynomial Chaos-Based H <sub>2</sub> -optimal Static Output Feedback Control of Systems with Probabilistic Parametric Uncertainties. IFAC-PapersOnLine, 2017, 50, 3536-3541.	0.9	3
214	Parameter Estimation for Signal Transduction Networks from Experimental Time Series Using Picard Iteration. IFAC-PapersOnLine, 2018, 51, 191-196.	0.9	3
215	Model-based State Estimation Based on Hybrid Cybernetic Models. IFAC-PapersOnLine, 2018, 51, 197-202.	0.9	3
216	Improved Robust Predictive Control for Lurme Systems Using Set-based Learning. IFAC-PapersOnLine, 2018, 51, 487-492.	0.9	3

#	ARTICLE	IF	CITATIONS
217	Combined online communication scheduling and output feedback MPC of cyber-physical systems. , 2019, , .		3
218	Modeling Enzyme Controlled Metabolic Networks in Rapidly Changing Environments by Robust Optimization. , 2019, 3, 248-253.		3
219	Hybrid Cybernetic Modeling of the Microbial Production of Polyhydroxyalkanoates Using Two Carbon Sources. Computer Aided Chemical Engineering, 2021, 50, 1969-1974.	0.5	3
220	Measuring the reversible heat of lithium-ion cells via current pulses for modeling of temperature dynamics. Journal of Power Sources, 2021, 506, 230110.	7.8	3
221	Polynomial chaos-based $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e186" altimg="si541.svg">\langle \text{mml:mrow}>\langle \text{mml:mi mathvariant="script">H</mml:mi></mml:mrow>\langle \text{mml:mrow}>\langle \text{mml:mn}>2</mml:mn></mml:mrow>\langle \text{mml:mrow}>\langle \text{mml:mrow}>\langle \text{mml:math}>$ output-feedback control of systems with probabilistic parametric uncertainties. Automatica, 2021, 131, 109743.	10.0	3
222	Scalable and Data Privacy Conserving Controller Tuning for Large-Scale Power Networks. IEEE Transactions on Control Systems Technology, 2022, 30, 696-711.	5.2	3
223	Remarks on Moving Horizon State Estimation with Guaranteed Convergence. , 0, , 67-80.		3
224	Fallback Approximated Constrained Optimal Output Feedback Control Under Variable Parameters. Lecture Notes in Electrical Engineering, 2021, , 404-414.	0.4	3
225	An NMPC Approach to Avoid Weakly Observable Trajectories. Lecture Notes in Control and Information Sciences, 2009, , 275-284.	1.0	3
226	Towards Safe Neural Network Supported Model Predictive Control. IFAC-PapersOnLine, 2020, 53, 5246-5251.	0.9	3
227	Path following and terminal force control of robotic manipulators. , 2020, , .		3
228	Robust output feedback MPC with reduced conservatism for linear uncertain systems using time varying tubes. , 2021, , .		3
229	Stability conditions for observer based output feedback stabilization with nonlinear model predictive control. , 0, , .		2
230	Robust Output Feedback Model Predictive Control for Constrained Linear Systems under Uncertainty Based on Feed Forward and Positive Invariant Feedback Control. , 2006, , .		2
231	Predictive Control of Nonlinear Chemical Processes under Asynchronous Measurements and Controls. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 153-158.	0.4	2
232	Model Discrimination and Parameter Estimation via Infeasibility Certificates for Dynamical Biochemical Reaction Networks. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 245-250.	0.4	2
233	Set Membership Parameter Estimation and Design of Experiments Using Homothety. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 9035-9040.	0.4	2
234	Graph problems arising from parameter identification of discrete dynamical systems. Mathematical Methods of Operations Research, 2011, 73, 381-400.	1.0	2

#	ARTICLE	IF	CITATIONS
235	Design of experiments for guaranteed parameter estimation in membership setting. , 2011, , .		2
236	A Method for the Interpretation of Parametric Faults in Model Based Condition Monitoring. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 618-623.	0.4	2
237	Structural Problem Reduction for Set-based Fault Diagnosis. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 595-600.	0.4	2
238	Verifying robust forward admissibility for nonlinear systems using (skewed) structured singular values. , 2016, , .		2
239	Adaptive nonlinear predictive control and estimation of microaerobic processes. IFAC-PapersOnLine, 2017, 50, 12635-12640.	0.9	2
240	Constrained reference learning for continuous-time model predictive tracking control of autonomous systems. IFAC-PapersOnLine, 2021, 54, 329-334.	0.9	2
241	Continuous-Time Approximated Parametric Output-Feedback Nonlinear Model Predictive Control. IFAC-PapersOnLine, 2021, 54, 251-256.	0.9	2
242	Towards Risk-aware Machine Learning Supported Model Predictive Control and Open-loop Optimization for Repetitive Processes. IFAC-PapersOnLine, 2021, 54, 321-328.	0.9	2
243	Constrained learning for model predictive control in asymptotically constant reference tracking tasks. IFAC-PapersOnLine, 2021, 54, 244-249.	0.9	2
244	Approximated Constrained Optimal Control subject to Variable Parameters. IFAC-PapersOnLine, 2020, 53, 9310-9315.	0.9	2
245	Modular Design for Constrained Control of Actuator-Plant Cascades. , 2019, , .		2
246	Controller tuning in power systems using singular value optimization. IFAC-PapersOnLine, 2020, 53, 13501-13507.	0.9	2
247	Optimization-based primary and secondary control of microgrids. Automatisierungstechnik, 2020, 68, 1044-1058.	0.8	2
248	Output feedback stabilization with nonlinear predictive control: asymptotic properties. , 0, , .		1
249	System and Control Theory Furthers the Understanding of Biological Signal Transduction. , 2007, , 123-135.		1
250	Set-based parameter estimation for symmetric network motifs. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 10454-10459.	0.4	1
251	Robustness-based Model Validation of an Apoptosis Signalling Network Model. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 930-935.	0.4	1
252	Guaranteed diagnosability of parametric faults in nonlinear systems. , 2013, , .		1

#	ARTICLE	IF	CITATIONS
253	Modellbasierte Zustandsschätzung für Lithium-Ionen-Batterien. Automatisierungstechnik, 2014, 62, 296-311.	0.8	1
254	Finite-Time Output Energy Measure for Polynomial Systems With Applications in Observability Analysis. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 2800-2805.	0.4	1
255	Rate of convergence analysis of a dual fast gradient method for general convex optimization. , 2015, , .		1
256	ℓ <sub>1</sub> -based approaches to determining guaranteed consistent and inconsistent parameter sets. , 2015, , .		1
257	Parallel and distributed random coordinate descent method for convex error bound minimization. , 2015, , .		1
258	Set-based Experiment Design for Model Discrimination Using Bilevel Optimization. IFAC-PapersOnLine, 2016, 49, 295-299.	0.9	1
259	Monotonicity of Kinetic Proofreading. IFAC-PapersOnLine, 2016, 49, 306-311.	0.9	1
260	Efficient stochastic model predictive control for embedded systems based on second-order cone programs. , 2016, , .		1
261	Model predictive control for uncertain nonlinear systems subject to chance constraints. , 2016, , .		1
262	Admissible Control Parametrization of Uncertain Finite-time Processes With Application to Li-ion Battery Management. , 2018, , .		1
263	Coordinated Tuning of Controller Parameters in AC/DC Grids for Power Oscillation Damping. , 2018, , .		1
264	One-Step Safe Neural Network Supported Control. , 2021, , .		1
265	Repetitive Set-based Learning Robust Predictive Control for Lurê™e Systems. IFAC-PapersOnLine, 2020, 53, 7117-7122.	0.9	1
266	Multi-stage Event-triggered Model Predictive Control for Automated Trajectory Drilling. IFAC-PapersOnLine, 2020, 53, 9478-9483.	0.9	1
267	Nonlinearity Measures for Distributed Parameter and Descriptor Systems. IFAC-PapersOnLine, 2020, 53, 7545-7550.	0.9	1
268	Describing force-induced bone growth and adaptation by a mathematical model. Journal of Musculoskeletal Neuronal Interactions, 2008, 8, 15-7.	0.1	1
269	Understanding the process of force-induced bone growth and adaptation through a mathematical model. Bone, 2008, 42, S61.	2.9	0
270	Force-induced bone growth and adaptation: A system theoretical approach to understanding bone mechanotransduction. IOP Conference Series: Materials Science and Engineering, 2010, 10, 012127.	0.6	0



#	ARTICLE	IF	CITATIONS
271	Therapy discrimination via global sensitivity analysis of force-induced bone growth and adaptation. , 2010, , .		0
272	Discrete-to-continuous dynamics reconstruction for bilinear systems. , 2012, , .		0
273	Outlier Detection for Polynomial Systems Using Semidefinite Relaxations. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 761-766.	0.4	0
274	Unraveling Apoptosis Signalling using Linear Control Methods: Linking the Loop Gain to Reverting the Decision to Undergo Apoptosis. IFAC-PapersOnLine, 2015, 48, 954-959.	0.9	0
275	Manipulation on a molecular level: towards controlled molecular 3D printing. , 2016, , .		0
276	Multi-objective complexity reduction for set-based fault diagnosis. , 2017, , .		0
277	Low latency output feedback predictive control based on optimality conditions. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800429.	0.2	0
278	Controller Tuning for the Improvement of Dynamic Security in Power Systems. , 2018, , .		0
279	Parameter Estimation by Picard-Iteration for Biochemical Networks with Noisy Data. IFAC-PapersOnLine, 2018, 51, 64-67.	0.9	0
280	Model-supported Patient Stratification Using Set-based Estimation Methods. IFAC-PapersOnLine, 2018, 51, 892-897.	0.9	0
281	Predictive Tracking Control of a Camera - Head Mounted Display System subject to Communication Constraints. , 2018, , .		0
282	Technical Committee on Process Control [Technical Activities]. IEEE Control Systems, 2019, 39, 18-20.	0.8	0
283	Errata for "Comments on Truncation Errors for Polynomial Chaos Expansions" [Jan 18 169-174]. , 2020, 4, 504-505.		0
284	Monitoring and verification of event-driven transportation systems in discrete manufacturing. , 2020, , .		0
285	Model predictive control with guarantees for discrete linear stochastic systems subject to additive disturbances with chance constraints. , 2020, , .		0
286	Robust MPC for networks with varying communication capabilities. IFAC-PapersOnLine, 2021, 54, 20-27.	0.9	0
287	Reducing conservatism in stochastic model predictive blending multiple control gains. , 2021, , .		0
288	Expression of JAK2-V617F Kinase in Myeloid Progenitors and Proerythroblasts Induces Differential Patterns of Hypersensitivity in Activation of Key Signaling Nodes upon Incubation with Low-Dose, Physiologic EPO Concentrations. Blood, 2014, 124, 4573-4573.	1.4	0

#	ARTICLE	IF	CITATIONS
289	Data-driven Metabolic Network Reduction for Multiple Modes Considering Uncertain Measurements. IFAC-PapersOnLine, 2020, 53, 16866-16871.	0.9	0
290	A standing molecule as a coherent single-electron field emitter. , 2021, , .		0
291	Closed-loop real-time optimization for unsteady operating production systems. Journal of Process Control, 2022, 113, 80-95.	3.3	0