

# Achim Ilchmann

## 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.

58  
papers

1,416  
citations

21  
h-index

37  
g-index

61  
ext. papers

1,727  
ext. citations

2  
avg, IF

4.65  
L-index

#	Paper	IF	Citations
58	Tracking with prescribed transient behaviour. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , <b>2002</b> , 7, 471-493	1	152
57	The quasi-Weierstraß form for regular matrix pencils. <i>Linear Algebra and Its Applications</i> , <b>2012</b> , 436, 4052-4069	4.69	97
56	Tracking with Prescribed Transient Behavior for Nonlinear Systems of Known Relative Degree. <i>SIAM Journal on Control and Optimization</i> , <b>2007</b> , 46, 210-230	1.9	87
55	High-gain control without identification: a survey. <i>GAMM Mitteilungen</i> , <b>2008</b> , 31, 115-125	1.8	79
54	PI-Funnel Control for Two Mass Systems. <i>IEEE Transactions on Automatic Control</i> , <b>2009</b> , 54, 918-923	5.9	66
53	Tracking control: Performance funnels and prescribed transient behaviour. <i>Systems and Control Letters</i> , <b>2005</b> , 54, 655-670	2.4	65
52	Non-Identifier-Based Adaptive Control of Dynamical Systems: A Survey. <i>IMA Journal of Mathematical Control and Information</i> , <b>1991</b> , 8, 321-366	1.1	61
51	Tracking control with prescribed transient behaviour for systems of known relative degree. <i>Systems and Control Letters</i> , <b>2006</b> , 55, 396-406	2.4	59
50	High-gain adaptive tracking for nonlinear systems. <i>Automatica</i> , <b>1997</b> , 33, 881-888	5.7	58
49	Funnel Control for Systems with Relative Degree Two. <i>SIAM Journal on Control and Optimization</i> , <b>2013</b> , 51, 965-995	1.9	55
48	. <i>IEEE Transactions on Automatic Control</i> , <b>2010</b> , 55, 2177-2182	5.9	47
47	Stabilizability of linear time-varying systems. <i>Systems and Control Letters</i> , <b>2013</b> , 62, 747-755	2.4	44
46	Time-Varying Linear Systems: Relative Degree and Normal Form. <i>IEEE Transactions on Automatic Control</i> , <b>2007</b> , 52, 840-851	5.9	44
45	Time-varying polynomial matrix systems. <i>International Journal of Control</i> , <b>1984</b> , 40, 329-362	1.5	43
44	Input constrained funnel control with applications to chemical reactor models. <i>Systems and Control Letters</i> , <b>2004</b> , 53, 361-375	2.4	42
43	Funnel Control With Saturation: Linear MIMO Systems. <i>IEEE Transactions on Automatic Control</i> , <b>2010</b> , 55, 532-538	5.9	36
42	An Adaptive Servomechanism for a Class of Infinite-Dimensional Systems. <i>SIAM Journal on Control and Optimization</i> , <b>1994</b> , 32, 917-936	1.9	25

41	Zero dynamics and funnel control of linear differential-algebraic systems. <i>Mathematics of Control, Signals, and Systems</i> , <b>2012</b> , 24, 219-263	1.3	23
40	A Behavioral Approach to Time-Varying Linear Systems. Part 1: General Theory. <i>SIAM Journal on Control and Optimization</i> , <b>2005</b> , 44, 1725-1747	1.9	23
39	High-gain adaptive stabilization of multivariable linear systems [revisited]. <i>Systems and Control Letters</i> , <b>1992</b> , 18, 355-364	2.4	22
38	Adaptive stabilization with exponential decay. <i>Systems and Control Letters</i> , <b>1990</b> , 14, 437-443	2.4	22
37	Performance funnels and tracking control. <i>International Journal of Control</i> , <b>2009</b> , 82, 1828-1840	1.5	21
36	A Behavioral Approach to Time-Varying Linear Systems. Part 2: Descriptor Systems. <i>SIAM Journal on Control and Optimization</i> , <b>2005</b> , 44, 1748-1765	1.9	19
35	Zero Dynamics and Stabilization for Analytic Linear Systems. <i>Acta Applicandae Mathematicae</i> , <b>2015</b> , 138, 17-57	1.1	14
34	Asymptotic tracking with prescribed transient behaviour for linear systems. <i>International Journal of Control</i> , <b>2006</b> , 79, 910-917	1.5	14
33	Time-varying linear systems and invariants of system equivalence. <i>International Journal of Control</i> , <b>1985</b> , 42, 759-790	1.5	14
32	Tracking with Prescribed Transient Performance for Hysteretic Systems. <i>SIAM Journal on Control and Optimization</i> , <b>2010</b> , 48, 4731-4752	1.9	13
31	Chapter 7: Normal Forms, High-Gain, and Funnel Control for Linear Differential-Algebraic Systems <b>2012</b> , 127-164		13
30	Universal Adaptive Stabilization of Nonlinear Systems. <i>Journal of Dynamical and Control Systems</i> , <b>1997</b> , 7, 199-213		13
29	Input Constrained Adaptive Tracking with Applications to Exothermic Chemical Reaction Models. <i>SIAM Journal on Control and Optimization</i> , <b>2004</b> , 43, 154-173	1.9	13
28	On stability of time-varying linear differential-algebraic equations. <i>International Journal of Control</i> , <b>2013</b> , 86, 1060-1076	1.5	12
27	Simple adaptive stabilization of high-gain stabilizable systems. <i>Systems and Control Letters</i> , <b>1993</b> , 20, 189-198	2.4	12
26	Time-Varying Linear Control Systems: A Geometric Approach. <i>IMA Journal of Mathematical Control and Information</i> , <b>1989</b> , 6, 411-440	1.1	11
25	On positivity and stability of linear time-varying Volterra equations. <i>Positivity</i> , <b>2009</b> , 13, 671-681	0.6	8
24	Adaptive Tracking for a class of infinite-dimensional systems. <i>Systems and Control Letters</i> , <b>1998</b> , 34, 11-21	2.4	8

23	Adaptive Tracking for polynomial minimum phase systems. <i>Dynamical Systems</i> , <b>1998</b> , 13, 341-371		7
22	Robustness of Funnel Control in the Gap Metric. <i>SIAM Journal on Control and Optimization</i> , <b>2010</b> , 48, 3169-3190	1.9	6
21	Threshold Switching Functions in High-Gain Adaptive Control. <i>IMA Journal of Mathematical Control and Information</i> , <b>1991</b> , 8, 409-429	1.1	6
20	Exponential Stabilization using Nondifferential Gain Adaptation. <i>IMA Journal of Mathematical Control and Information</i> , <b>1990</b> , 7, 339-349	1.1	6
19	On Minimum Phase. <i>Automatisierungstechnik</i> , <b>2013</b> , 61, 805-817	0.8	6
18	Funnel control of nonlinear systems. <i>Mathematics of Control, Signals, and Systems</i> , <b>2021</b> , 33, 151-194	1.3	6
17	The Byrnes--Isidori Form for Infinite-Dimensional Systems. <i>SIAM Journal on Control and Optimization</i> , <b>2016</b> , 54, 1504-1534	1.9	5
16	Stability and robust stability of positive Volterra systems. <i>International Journal of Robust and Nonlinear Control</i> , <b>2012</b> , 22, 604-629	3.6	5
15	Adaptive high-gain Tracking with variable sampling rate. <i>Systems and Control Letters</i> , <b>1999</b> , 36, 285-293	2.4	5
14	Stabilizability of systems with exponential dichotomy. <i>Systems and Control Letters</i> , <b>1987</b> , 8, 211-220	2.4	5
13	Robustness of $\lambda$ -Tracking in the Gap Metric. <i>SIAM Journal on Control and Optimization</i> , <b>2008</b> , 47, 2724-2744	1.9	4
12	Optimal control of differential-algebraic equations from an ordinary differential equation perspective. <i>Optimal Control Applications and Methods</i> , <b>2019</b> , 40, 351-366	1.7	4
11	Model predictive control for linear differential-algebraic equations. <i>IFAC-PapersOnLine</i> , <b>2018</b> , 51, 98-103	0.7	4
10	Model predictive control for linear DAEs without terminal constraints and costs. <i>IFAC-PapersOnLine</i> , <b>2018</b> , 51, 116-121	0.7	3
9	Indirect sampled-data control with sampling period adaptation. <i>International Journal of Control</i> , <b>2011</b> , 84, 424-431	1.5	2
8	Adaptive controllers and root loci of minimum-phase systems. <i>Journal of Dynamical and Control Systems</i> , <b>1994</b> , 4, 123-146		2
7	Model predictive control for singular differential-algebraic equations. <i>International Journal of Control</i> , <b>1-10</b>	1.5	2
6	Robustness of Tracking and funnel control in the gap metric <b>2009</b> ,		1

- 5 ALGEBRAIC THEORY OF TIME-VARYING LINEAR SYSTEMS: A SURVEY. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2005**, 38, 1185-1191 1
- 4 Switching Functions **1999**, 1
- 3 Adaptive sampled-data tracking for input-constrained exothermic chemical reaction models. *Systems and Control Letters*, **2005**, 54, 1149-1161 2.4
- 2 Piecewise constant high-gain adaptive tracking for higher relative degree linear systems. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **1999**, 32, 1820-1825
- 1 Comments on "Canonical transformation for a class of time-varying multivariable systems" *International Journal of Control*, **1987**, 45, 365-365 1.5