Andreas Kugi

List of Publications by Citations

334 papers	3,043 citations
26 h-index	43 g-index
356 ext. papers	3,775 ext. citations
2.6 avg, IF	5.75 L-index

#	Paper	IF	Citations
334	On the Passivity-Based Impedance Control of Flexible Joint Robots. *IEEE Transactions on Robotics*, **2008**, 24, 416-429	6.5	267
333	Unscented Kalman filter for vehicle state estimation. *Vehicle System Dynamics*, **2011**, 49, 1497-1520	2.8	142
332	Tracking control for boundary controlled parabolic PDEs with varying parameters: Combining backstepping and differential flatness. *Automatica*, **2009**, 45, 1182-1194	5.7	115
331	Real-time Nonlinear Model Predictive Path-Following Control of a Laboratory Tower Crane. *IEEE Transactions on Control Systems Technology*, **2014**, 22, 1461-1473	4.8	86
330	Stability and Incremental Improvement of Suboptimal MPC Without Terminal Constraints. *IEEE Transactions on Automatic Control*, **2010**, 55, 2576-2580	5.9	85
329	A mathematical model of a slab reheating furnace with radiative heat transfer and non-participating gaseous media. *International Journal of Heat and Mass Transfer*, **2010**, 53, 5933-5946	4.9	51
328	Nonlinear H/sub /spl infin// controller design for a DC-to-DC power converter. *IEEE Transactions on Control Systems Technology*, **1999**, 7, 230-237	4.8	50
327	Nonlinear model predictive control of a continuous slab reheating furnace. *Control Engineering Practice*, **2013**, 21, 495-508	3.9	48
326	Handling constraints in optimal control with saturation functions and system extension. *Systems and Control Letters*, **2010**, 59, 671-679	2.4	46
325	Nonlinear pressure control of self-supplied variable displacement axial piston pumps. *Control Engineering Practice*, **2010**, 18, 84-93	3.9	45
324	Mathematical Modeling and Nonlinear Controller Design for a Novel Electrohydraulic Power-Steering System. *IEEE/ASME Transactions on Mechatronics*, **2007**, 12, 85-97	5.5	45
323	Swing-up control of a triple pendulum on a cart with experimental validation. *Automatica*, **2013**, 49, 801-808	5.7	42
322	Trajectory Tracking of a 3DOF Laboratory Helicopter Under Input and State Constraints. *IEEE Transactions on Control Systems Technology*, **2010**, 18, 944-952	4.8	42
321	Modeling and simulation of a hydrostatic transmission with variable-displacement pump. *Mathematics and Computers in Simulation*, **2000**, 53, 409-414	3.3	42
320	A novel robust position estimator for self-sensing magnetic levitation systems based on least squares identification. *Control Engineering Practice*, **2011**, 19, 146-157	3.9	40
319	Real-time optimal quantum control of mechanical motion at room temperature. *Nature*, **2021**, 595, 373-377	50.4	38
318	Optimisation based path planning for car parking in narrow environments. *Robotics and Autonomous Systems*, **2016**, 79, 1-11	3.5	37

317	Trajectory Planning for Boundary Controlled Parabolic PDEs With Varying Parameters on Higher-Dimensional Spatial Domains. *IEEE Transactions on Automatic Control*, **2009**, 54, 1854-1868	5.9	37
316	Modeling and static optimization of a variable speed pumped storage power plant. *Renewable Energy*, **2017**, 111, 38-51	8.1	33
315	Digital Slew Rate and S-Shape Control for Smart Power Switches to Reduce EMI Generation. *IEEE Transactions on Power Electronics*, **2015**, 30, 5170-5180	7.2	33
314	Flatness-based tracking control of a piezoactuated Euler–Bernoulli beam with non-collocated output feedback: theory and experimentsView all notes. *International Journal of Control*, **2008**, 81, 475-493	1.5	30
313	Impedance control for variable stiffness mechanisms with nonlinear joint coupling **2008**,		30
312	Active compensation of roll eccentricity in rolling mills. *IEEE Transactions on Industry Applications*, **2000**, 36, 625-632	4.3	30
311	Infinite-dimensional decentralized damping control of large-scale manipulators with hydraulic actuation. *Automatica*, **2016**, 63, 101-115	5.7	28
310	Modeling and optimal steady-state operating points of an ORC waste heat recovery system for diesel engines. *Applied Energy*, **2017**, 206, 329-345	10.7	28
309	An infinite-dimensional control concept for piezoelectric structures with complex hysteresis. *Structural Control and Health Monitoring*, **2006**, 13, 1099-1119	4.5	28
308	Accurate low-order dynamic model of a compact plate heat exchanger. *International Journal of Heat and Mass Transfer*, **2013**, 61, 323-331	4.9	26
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306	Digitally controlled electrorheological valves and their application in vehicle dampers. *Mechatronics*, **2012**, 22, 629-638	3	25
305	Compensation of parasitic effects for a silicon tuning fork gyroscope. *IEEE Sensors Journal*, **2006**, 6, 596-604	4	25
304	Resolving the problem of non-integrability of nullspace velocities for compliance control of redundant manipulators by using semi-definite Lyapunov functions **2008**,		24
303	A mathematical model of a direct-fired continuous strip annealing furnace. *International Journal of Heat and Mass Transfer*, **2014**, 69, 375-389	4.9	23
302	Tracking control design for a wave equation with dynamic boundary conditions modeling a piezoelectric stack actuator. *International Journal of Robust and Nonlinear Control*, **2011**, 21, 542-562	3.6	23
301	Modelling and experimental model validation for a pusher-type reheating furnace. *Mathematical and Computer Modelling of Dynamical Systems*, **2009**, 15, 209-232	1	22
300	Control of a flexible beam actuated by macro-fiber composite patches: II. Hysteresis and creep compensation, experimental results. *Smart Materials and Structures*, **2011**, 20, 015016	3.4	20

299	Nonlinear control in rolling mills: a new perspective. *IEEE Transactions on Industry Applications*, **2001**, 37, 1394-1402	4.3	19
298	Backstepping-based boundary observer for a class of time-varying linear hyperbolic PIDEs. *Automatica*, **2016**, 68, 369-377	5.7	18
297	Stability of an Euler-Bernoulli Beam With a Nonlinear Dynamic Feedback System. *IEEE Transactions on Automatic Control*, **2016**, 61, 2782-2795	5.9	18
296	A new flatness-based control of lateral vehicle dynamics. *Vehicle System Dynamics*, **2008**, 46, 789-801	2.8	18
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290	Mathematical modeling of the contour evolution of heavy plates in hot rolling. *Applied Mathematical Modelling*, **2015**, 39, 4534-4547	4.5	16
289	Slew rate control strategies for smart power ICs based on iterative learning control **2014**,		16
288	Dynamic Optimization of a Slab Reheating Furnace With Consistent Approximation of Control Variables. *IEEE Transactions on Control Systems Technology*, **2011**, 19, 1444-1456	4.8	16
287	An analytical approach for modelling asymmetrical hot rolling of heavy plates. *Mathematical and Computer Modelling of Dynamical Systems*, **2008**, 14, 249-267	1	16
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284	New Energy-based Nonlinear Controller for Hydraulic Piston Actuators. *European Journal of Control*, **2004**, 10, 163-173	2.5	15
283	Nonlinear model predictive control of the strip temperature in an annealing furnace. *Journal of Process Control*, **2016**, 48, 1-13	3.9	14
282	Model based control of compact heat exchangers independent of the heat transfer behavior. *Journal of Process Control*, **2014**, 24, 286-298	3.9	14

281	Neural network for identification of roll eccentricity in rolling mills. *Journal of Materials Processing Technology*, **1996**, 60, 387-392	5.3	14
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278	Attitude Estimation Using Redundant Inertial Measurement Units for the Control of a Camera Stabilization Platform. *IEEE Transactions on Control Systems Technology*, **2016**, 24, 1837-1844	4.8	13
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275	Analysis and design of an Extended Kalman Filter for the plate temperature in heavy plate rolling. *Journal of Process Control*, **2014**, 24, 1371-1381	3.9	12
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262	Infinit-dimensionale Regelung eines Brückenkranes mit schweren Ketten (Infinite-dimensional Control of a Gantry Crane with Heavy Chains). *Automatisierungstechnik*, **2005**, 53, 400-410	0.8	11
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260	Magnetic Equivalent Circuit Modeling of a Saturated Surface-Mounted Permanent Magnet Synchronous Machine. *IFAC-PapersOnLine*, **2015**, 48, 360-365	0.7	10
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258	Feedforward control design for a semilinear wave equation. *Proceedings in Applied Mathematics and Mechanics*, **2009**, 9, 7-10	0.2	10
257	An Efficient Implementation of Backstepping Observers for Time-Varying Parabolic PDEs. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2012**, 45, 798-803		10
256	Suboptimal model predictive control of a laboratory crane. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2010**, 43, 397-402		10
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254	Infinite-Dimensional Control of Nonlinear Beam Vibrations by Piezoelectric Actuator and Sensor Layers. *Nonlinear Dynamics*, **1999**, 19, 71-91	5	10
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250	Combined Path Following and Compliance Control for Fully Actuated Rigid Body Systems in 3-D Space. *IEEE Transactions on Control Systems Technology*, **2017**, 25, 1750-1760	4.8	9
249	Hierarchical nonlinear optimization-based controller of a continuous strip annealing furnace. *Control Engineering Practice*, **2018**, 73, 40-55	3.9	9
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237	Model-based control concepts for vibratory MEMS gyroscopes. *Mechatronics*, **2012**, 22, 241-250	3	8
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233	Nonlinear Model Predictive Control of a Variable-Speed Pumped-Storage Power Plant. *IEEE Transactions on Control Systems Technology*, **2021**, 29, 645-660	4.8	8
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231	The spectral element method as an efficient tool for transient simulations of hydraulic systems. *Applied Mathematical Modelling*, **2018**, 54, 627-647	4.5	7
230	Control-oriented modeling of servo-pump driven injection molding machines in the filling and packing phase. *Mathematical and Computer Modelling of Dynamical Systems*, **2018**, 24, 451-474	1	7
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216	State Estimation for Parabolic PDEs with Varying Parameters on 3-Dimensional Spatial Domains. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2011**, 44, 13338-13343		6
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213	Analyse und Synthese nichtlinearer dissipativer Systeme: Ein Überblick (Teil 2) (Analysis and Synthesis of Non-linear Dissipative Systems: An Overview (Part 2)). *Automatisierungstechnik*, **2002**, 50, 103	0.8	6
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189	Path Following Control for Elastic Joint Robots * *This research was partially supported by the Austrian Research Promotion Agency (FFG), grant number: 850952. *IFAC-PapersOnLine*, **2017**, 50, 4806-4811	0.7	4
188	Manifold stabilization and path-following control for flat systems with application to a laboratory tower crane **2014**,		4
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