Leonid Fridman

List of Publications by Year in Descending Order

456 papers	11,260 citations	52 h-index	94 g-index
530 ext. papers	14,103 ext. citations	3 avg, IF	6.95 L-index

#	Paper	IF	Citations
456	Super Twisting based Lyapunov Redesign for Uncertain Linear Delay Systems. *IEEE Transactions on Automatic Control*, **2022**, 1-1	5.9	0
455	Robust Multi-Model Predictive Control via Integral Sliding Modes **2022**, 6, 2623-2628		1
454	A Lipschitz Continuous Sliding Mode Control for Implicit Systems. *European Journal of Control*, **2022**, 100661	2.5	0
453	Multivariable Super-Twisting Algorithm for Systems with Uncertain Input Matrix and Perturbations. *IEEE Transactions on Automatic Control*, **2021**, 1-1	5.9	1
452	A Lyapunov based Saturated Super-Twisting Algorithm. *Studies in Systems, Decision and Control*, **2021**, 47-68	0.8	0
451	Robust Stabilization of a Class of Underactuated Mechanical Systems of 2 DOF via Continuous Higher-Order Sliding-Modes. *Studies in Systems, Decision and Control*, **2021**, 351-391	0.8	
450	Robust output trajectory linearisation control for a class of linear time-varying systems. *IET Control Theory and Applications*, **2021**, 15, 877-889	2.5	1
449	Output-feedback Lyapunov redesign of uncertain systems with delayed measurements. *International Journal of Robust and Nonlinear Control*, **2021**, 31, 3747-3766	3.6	1
448	Chattering analysis for Lipschitz continuous sliding-mode controllers. *International Journal of Robust and Nonlinear Control*, **2021**, 31, 3779-3794	3.6	4
447	Reaction wheel pendulum control using fourth-order discontinuous integral algorithm. *International Journal of Robust and Nonlinear Control*, **2021**, 31, 185-206	3.6	4
446	Barrier function-based adaptive higher order sliding mode controllers. *Automatica*, **2021**, 123, 109355	5.7	15
445	A polytopic strategy for improved non-asymptotic robust control via implicit Lyapunov functions. *Nonlinear Analysis: Hybrid Systems*, **2021**, 39, 100988	4.5	1
444	Saturated Lipschitz Continuous Sliding Mode Controller for Perturbed Systems With Uncertain Control Coefficient. *IEEE Transactions on Automatic Control*, **2021**, 66, 3885-3891	5.9	6
443	Robust global stabilization of a class of underactuated mechanical systems of two degrees of freedom. *International Journal of Robust and Nonlinear Control*, **2021**, 31, 3908-3928	3.6	3
442	Model-Free Sliding-Mode-Based Detection and Estimation of Backlash in Drives With Single Encoder. *IEEE Transactions on Control Systems Technology*, **2021**, 29, 812-817	4.8	3
441	Output global oscillatory synchronisation of heterogeneous systems. *International Journal of Control*, **2021**, 94, 1982-1993	1.5	
440	Continuous Sliding-Mode Output-Feedback Control for Stabilization of a Class of Underactuated Systems. *IEEE Transactions on Automatic Control*, **2021**, 1-1	5.9	3

2

439	Finite-Time State-Observer for a Class of Linear Time-Varying Systems with Unknown Inputs. *IEEE Transactions on Automatic Control*, **2021**, 1-1	5.9	1
438	Design of a proportional integral derivative-like continuous sliding mode controller. *International Journal of Robust and Nonlinear Control*, **2021**, 31, 3439-3454	3.6	0
437	Conditions of self-oscillations in generalized Persidskii systems. *IEEE Transactions on Automatic Control*, **2021**, 1-1	5.9	
436	Dual layer barrier functions based adaptive higher order sliding mode control. *International Journal of Robust and Nonlinear Control*, **2021**, 31, 3795-3808	3.6	4
435	Robust orbital stabilization: A Floquet theory based approach. *International Journal of Robust and Nonlinear Control*, **2021**, 31, 8075	3.6	1
434	Joint swing-up and stabilization of the Reaction Wheel Pendulum using Discontinuous Integral algorithm. *Nonlinear Analysis: Hybrid Systems*, **2021**, 41, 101042	4.5	1
433	Multivariable binary adaptive control using higher-order sliding modes applied to inertially stabilized platforms. *European Journal of Control*, **2021**, 63, 28-28	2.5	2
432	Robust exact differentiators with predefined convergence time. *Automatica*, **2021**, 134, 109858	5.7	3
431	Lyapunov redesign for a class of uncertain systems with delays. *Nonlinear Analysis: Hybrid Systems*, **2021**, 43, 101096	4.5	0
430	Barrier Function-Based Adaptive Lyapunov Redesign for Systems without a priori Bounded Perturbations. *IEEE Transactions on Automatic Control*, **2021**, 1-1	5.9	3
429	Fault tolerant control based on continuous twisting algorithms of a 3-DoF helicopter prototype. *Control Engineering Practice*, **2020**, 101, 104486	3.9	6
428	Zero dynamics assignment and its applications to the stabilization of linear time-varying systems. *Automatica*, **2020**, 119, 109056	5.7	1
427	A New Varying-Gain-Exponent-Based Differentiator/Observer: An Efficient Balance Between Linear and Sliding-Mode Algorithms. *IEEE Transactions on Automatic Control*, **2020**, 65, 5407-5414	5.9	10
426	Static Sliding Mode Control of Systems With Arbitrary Relative Degree by Using Artificial Delay. *IEEE Transactions on Automatic Control*, **2020**, 65, 5464-5471	5.9	16
425	Barrier Function-Based Adaptive Super-Twisting Controller. *IEEE Transactions on Automatic Control*, **2020**, 65, 4928-4933	5.9	20
424	Robust Global Stabilization of the Third Order Reaction Wheel Pendulum System. *IFAC-PapersOnLine*, **2020**, 53, 5111-5116	0.7	
423	A New Class of Uniform Continuous Higher-Order Sliding Mode Controllers. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2020**, 142,	1.6	3
422	Analysis of Singular Perturbations for a Class of Interconnected Homogeneous Systems: Input-to-State Stability Approach. *IFAC-PapersOnLine*, **2020**, 53, 6416-6421	0.7	0

421	On existence of oscillations in Persidskii systems. *IFAC-PapersOnLine*, **2020**, 53, 6305-6310	0.7	1
420	Saturated Feedback Control Using Different Higher-Order Sliding-Mode Algorithms. *Studies in Systems, Decision and Control*, **2020**, 125-148	0.8	1
419	Chattering Comparison Between Continuous and Discontinuous Sliding-Mode Controllers. *Studies in Systems, Decision and Control*, **2020**, 197-211	0.8	5
418	Adaptive Continuous Controllers Ensuring Prescribed Ultimate Bound for Uncertain Dynamical Systems. *IFAC-PapersOnLine*, **2020**, 53, 5063-5068	0.7	2
417	Control of Fully Actuated Mechanical Systems via Super-twisting Based Lyapunov Redesign. *IFAC-PapersOnLine*, **2020**, 53, 5117-5121	0.7	3
416	Semiglobal Finite-Time Trajectory Tracking Realization for Disturbed Nonlinear Systems via Higher-Order Sliding Modes. *IEEE Transactions on Automatic Control*, **2020**, 65, 2185-2191	5.9	13
415	On adaptive sliding mode control without a priori bounded uncertainty. *Automatica*, **2020**, 111, 108650	5.7	62
414	Wheel Slip Control for the Electric Vehicle With In-Wheel Motors: Variable Structure and Sliding Mode Methods. *IEEE Transactions on Industrial Electronics*, **2020**, 67, 8535-8544	8.9	22
413	Robust output tracking of constrained perturbed linear systems via model predictive sliding mode control. *International Journal of Robust and Nonlinear Control*, **2020**, 30, 1258-1274	3.6	7
412	Design of controllers with arbitrary convergence time. *Automatica*, **2020**, 112, 108710	5.7	52
411	Authors Reply To: (CI 20-0229) Comments on Design of controllers with arbitrary convergence time [Automatica 108710]. *Automatica*, **2020**, 122, 109194	5.7	2
410	Global Sliding Mode Observers for Some Uncertain Mechanical Systems. *IEEE Transactions on Automatic Control*, **2020**, 65, 1348-1355	5.9	11
409	Continuous Twisting Algorithm for Third-Order Systems. *IEEE Transactions on Automatic Control*, **2020**, 65, 2814-2825	5.9	18
408	Discrete-Time Implementation of Homogeneous Differentiators. *IEEE Transactions on Automatic Control*, **2020**, 65, 757-762	5.9	13
407	Virtual sensing of load forces in hydraulic actuators using second- and higher-order sliding modes. *Control Engineering Practice*, **2019**, 92, 104151	3.9	8
406	Two relay control robustification by continuous switched integral sliding modes. *IET Control Theory and Applications*, **2019**, 13, 1374-1382	2.5	3
405	High-order sliding-mode observer based input-output linearization. *International Journal of Robust and Nonlinear Control*, **2019**, 29, 3183-3199	3.6	16
404	Multivariable extension of global finite-time HOSM based differentiator for output-feedback unit vector and smooth binary control. *Asian Journal of Control*, **2019**, 21, 3-20	1.7	5

403	Generalized Model Reference Adaptive Control by Means of Global HOSM Differentiators. *IEEE Transactions on Automatic Control*, **2019**, 64, 2053-2060	5.9	17
402	Semi-implicit Discretization of the Uniform Robust Exact Differentiator **2019**,		5
401	Multivariable Generalization of BMRAC Algorithm by means of Global HOSM Differentiators with Dynamic Gains **2019**,		1
400	On the strong observability in linear time-varying singular systems. *Automatica*, **2019**, 101, 60-65	5.7	6
399	Design of super-twisting control gains: A describing function based methodology. *Automatica*, **2019**, 99, 175-180	5.7	33
398	Finite frequency H∞ control of singularly perturbed Euler-Lagrange systems: An artificial delay approach. *International Journal of Robust and Nonlinear Control*, **2019**, 29, 353-374	3.6	15
397	Stabilization of systems with switchings on the axis of their coordinates and its input-to-state properties. *Nonlinear Analysis: Hybrid Systems*, **2019**, 32, 10-18	4.5	2
396	When is it reasonable to implement the discontinuous sliding-mode controllers instead of the continuous ones? Frequency domain criteria. *International Journal of Robust and Nonlinear Control*, **2019**, 29, 810-828	3.6	49
395	Closing Gaps for Aircraft Attitude Higher Order Sliding Mode Control Certification via Practical Stability Margins Identification. *IEEE Transactions on Control Systems Technology*, **2018**, 26, 2020-2034	4.8	11
394	A Novel Method to Estimate the Reaching Time of the Super-Twisting Algorithm. *IEEE Transactions on Automatic Control*, **2018**, 63, 4301-4308	5.9	34
393	Continuous sliding-mode control for singular systems. *International Journal of Robust and Nonlinear Control*, **2018**, 28, 3454-3474	3.6	12
392	Barrier function-based adaptive sliding mode control. *Automatica*, **2018**, 93, 540-544	5.7	85
391	Analysis and design of systems driven by finite-time convergent controllers: practical stability approach. *International Journal of Control*, **2018**, 91, 2563-2572	1.5	4
390	Super-Twisting Algorithm in presence of time and state dependent perturbations. *International Journal of Control*, **2018**, 91, 2535-2548	1.5	41
389	Higher order sliding-mode observers with scaled dissipative stabilisers. *International Journal of Control*, **2018**, 91, 2511-2523	1.5	6
388	Sliding Modes for Switched Uncertain Linear Time Invariant Systems: An Output Integral Sliding Mode Approach **2018**, 153-185		3
387	Output feedback Continuous Twisting Algorithm. *Automatica*, **2018**, 96, 298-305	5.7	18
386	Technical Committee on Variable Structure and Sliding Mode Control [Technical Activities]. *IEEE Control Systems*, **2018**, 38, 17-18	2.9	2

385	Special issue on differentiators. *International Journal of Control*, **2018**, 91, 1980-1982	1.5	2
384	Practical Stability Phase and Gain Margins Concept. *Studies in Systems, Decision and Control*, **2018**, 101-132	1.8	3
383	Integral Sliding-Mode Observation and Control for Switched Uncertain Linear Time Invariant Systems: a Robustifying Strategy. *Asian Journal of Control*, **2018**, 20, 1551-1565	1.7	16
382	Output-feedback variable gain super-twisting algorithm for arbitrary relative degree systems. *International Journal of Control*, **2018**, 91, 2043-2059	1.5	8
381	Dissipative approach to sliding mode observers design for uncertain mechanical systems. *Automatica*, **2018**, 87, 330-336	5.7	23
380	Adaptation of Levant's differentiator based on barrier function. *International Journal of Control*, **2018**, 91, 2019-2027	1.5	10
379	Higher-Order Sliding-Mode Control for Linear Time-Varying Systems **2018**,		1
378	Barrier Function-Based Adaptive Integral Sliding Mode Control **2018**,		2
377	Anti-Chattering Strategy using Twisting Controller. *IFAC-PapersOnLine*, **2018**, 51, 384-389	0.7	2
376	Sliding Mode Tangent Space Observer for LTV Systems with Unknown Inputs **2018**,		4
375	Stabilization of the Reaction Wheel Pendulum via a Third Order Discontinuous Integral Sliding Mode Algorithm **2018**,		8
374	Adaptive Continuous Twisting Algorithm of Third Order **2018**,		3
373	Use of second-order sliding mode observer for low-accuracy sensing in hydraulic machines **2018**,		1
372	Barrier Function-Based Adaptive Twisting Controller **2018**,		2
371	Global Multivariable HOSM Differentiator for Output-Feedback Unit Vector Control of Nonuniform Relative Degree Systems **2018**,		4
370	Saturated Continuous Twisting Algorithm **2018**,		3
369	Lyapunov-based design for a class of variable-gain 2nd-sliding controllers with the desired convergence rate. *International Journal of Robust and Nonlinear Control*, **2018**, 28, 5279-5296	3.6	11
368	Fault detection and isolation for nonlinear non-affine uncertain systems via sliding-mode techniques. *International Journal of Control*, **2017**, 90, 218-230	1.5	11

367	An LMI approach for second-order sliding set design using piecewise Lyapunov functions. *Automatica*, **2017**, 79, 61-64	5.7	6
366	Global and exact HOSM differentiator with dynamic gains for output-feedback sliding mode control. *Automatica*, **2017**, 81, 156-163	5.7	44
365	Nonlinear sliding mode control design: An LMI approach. *Systems and Control Letters*, **2017**, 104, 38-44	2.4	21
364	Design of Continuous Twisting Algorithm. *Automatica*, **2017**, 80, 119-126	5.7	76
363	Barrier Adaptive First Order Sliding Mode Differentiator. *IFAC-PapersOnLine*, **2017**, 50, 1722-1727	0.7	1
362	A second order sliding mode differentiator with a variable exponent **2017**,		6
361	Closing gaps for aircraft attitude Higher Order Sliding Mode Control Certification **2017**,		1
360	High-order sliding-mode observer for linear time-varying systems with unknown inputs. *International Journal of Robust and Nonlinear Control*, **2017**, 27, 2338-2356	3.6	17
359	Twisting sliding mode control with adaptation: Lyapunov design, methodology and application. *Automatica*, **2017**, 75, 229-235	5.7	71
358	Chattering Analysis of HOSM Controlled Systems: Frequency Domain Approach. *IEEE Transactions on Automatic Control*, **2017**, 62, 4109-4115	5.9	20
357	Fault-tolerant control with control allocation for linear time varying systems: an output integral sliding mode approach. *IET Control Theory and Applications*, **2017**, 11, 245-253	2.5	4
356	Combined backstepping and HOSM control design for a class of nonlinear MIMO systems. *International Journal of Robust and Nonlinear Control*, **2017**, 27, 566-581	3.6	20
355	Trajectory tracking using continuous sliding mode algorithms for differential drive robots **2017**,		2
354	HOSM Differentiator with Varying Gains for Global/Semi-Global Output Feedback * *This work was supported in part by Brazilian funding agencies CNPq, FAPERJ and CAPES.. *IFAC-PapersOnLine*, **2017**, 50, 1728-1735	0.7	1
353	Oscillatory Global Output Synchronization of Nonidentical Nonlinear Systems * *This work is partly supported by ANR project WaQMoS (ANR 15 CE 04 0002), by the Government of Russian Federation (Grant 074-U01) and the Ministry of Education and Science of Russian Federation (Project 14.Z50.31.0031), and by HoTSMoCE Inria Associate Team.. *IFAC-PapersOnLine*, **2017**, 50, 2708-2713	0.7	3
352	Robust Generation of Self-Oscillation in Pendulum Systems: A switched Integral Sliding Mode Control Approach. *IFAC-PapersOnLine*, **2017**, 50, 7163-7168	0.7	1
351	A novel differentiator: A compromise between super twisting and linear algorithms **2017**,		6
350	**2017**,		11

349	Model predictive output integral sliding mode control **2016**,		3
348	Saturated Super-Twisting Algorithm: Lyapunov based approach **2016**,		18
347	Observer-based saturated output feedback control using twisting algorithm **2016**,		3
346	Zero-dynamics design and its application to the stabilization of implicit systems. *Systems and Control Letters*, **2016**, 98, 74-78	2.4	7
345	Discrete implementation of sliding mode controllers satisfying accuracy level specifications **2016**,		3
344	Chattering measurement in SMC and HOSMC **2016**,		9
343	Continuous output integral sliding mode control for switched linear systems. *Nonlinear Analysis: Hybrid Systems*, **2016**, 22, 284-305	4.5	16
342	Time-Varying Gain Differentiator: A Mobile Hydraulic System Case Study. *IEEE Transactions on Control Systems Technology*, **2016**, 24, 1740-1750	4.8	21
341	Continuous terminal sliding-mode controller. *Automatica*, **2016**, 69, 308-314	5.7	124
340	Implementation of Super-Twisting Control: Super-Twisting and Higher Order Sliding-Mode Observer-Based Approaches. *IEEE Transactions on Industrial Electronics*, **2016**, 63, 3677-3685	8.9	252
339	. *IEEE Transactions on Automatic Control*, **2016**, 61, 725-734	5.9	14
338	Delayed sliding mode control. *Automatica*, **2016**, 64, 37-43	5.7	22
337	Adaptive continuous twisting algorithm. *International Journal of Control*, **2016**, 89, 1798-1806	1.5	60
336	Advanced Control of Complex Dynamical Systems with Applications. *Mathematical Problems in Engineering*, **2016**, 2016, 1-2	1.1	
335	Technical Committee on Variable Structure and Sliding-Mode Control [Technical Activities]. *IEEE Control Systems*, **2016**, 36, 18-20	2.9	0
334	Output feedback sliding-mode control with unmatched disturbances, an ISS approach. *International Journal of Robust and Nonlinear Control*, **2016**, 26, 4056-4071	3.6	4
333	Saturated Super-Twisting Algorithm based on Perturbation Estimator **2016**,		16
332	Sampled describing function analysis of second order sliding modes **2016**,		3

331	Global sliding-mode observers for a class of mechanical systems with disturbances**The authors are grateful for the financial support of CONACyT (Consejo Nacional de Ciencia y Tecnología) grants: 261737, 241171 CVU 419644; PAPIIT-UNAM (Programa de Apoyo a Proyectos de Investigación e Innovación Tecnológica) IN 113614, IN 113613; Fondo de Colaboración del II-FI UNAM IISGBAS-100-2015 . *IFAC-PapersOnLine*, **2016**, 49, 440-445	0.7	1
330	Adaptive sliding mode control and observation. *International Journal of Control*, **2016**, 89, 1743-1746	1.5	21
329	Control of discrete time systems based on recurrent Super-Twisting-like algorithm. *ISA Transactions* , **2016**, 64, 47-55	5.5	33
328	Discrete sliding mode control for systems with arbitrary relative degree output **2016**,		9
327	Output-feedback generalization of Variable Gain Super-Twisting Sliding Mode Control via global HOSM differentiators **2016**,		3
326	Output tracking of systems subjected to perturbations and a class of actuator faults based on HOSM observation and identification. *Automatica*, **2015**, 59, 200-205	5.7	51
325	Robustification of time varying linear quadratic optimal control based on output integral sliding modes. *IET Control Theory and Applications*, **2015**, 9, 563-572	2.5	9
324	Robust Output Tracking of a 3DOF Helicopter via High-Order Sliding Mode Observers **2015**, 67-79		
323	Higher Order Sliding Mode Controllers with Adaptation **2015**, 159-175		
322	State Estimation on Switching Systems via High-Order Sliding Modes. *Lecture Notes in Control and Information Sciences*, **2015**, 151-178	0.5	2
321	LMI-based second-order sliding set design using reduced order of derivatives. *International Journal of Robust and Nonlinear Control*, **2015**, 25, 3763-3779	3.6	7
320	Self-Oscillations in Dynamic Systems. *Systems and Control: Foundations and Applications*, **2015**,	0.3	14
319	Overhead crane control through LQ singular surface design MATLAB Toolbox **2015**,		1
318	Identification of vehicle parameters and estimation of vertical forces. *International Journal of Systems Science*, **2015**, 46, 2996-3009	2.3	11
317	Fault tolerant control allocation via continuous integral sliding-modes: A HOSM-Observer approach. *Automatica*, **2015**, 51, 318-325	5.7	61
316	Fault detection and isolation for nonlinear systems via high-order-sliding-mode multiple-observer. *International Journal of Robust and Nonlinear Control*, **2015**, 25, 2871-2893	3.6	16
315	Global exact differentiator based on higher-order sliding modes and dynamic gains for globally stable output-feedback control **2015**,		7
314	Frequency domain analysis of HOSM systems **2015**,		1

295	. *IEEE Transactions on Vehicular Technology*, **2014**, 63, 3116-3127	6.8	10
294	Higher order super-twisting algorithm **2014**,		36
293	Practical relative degree in SMC systems: Frequency domain approach **2014**,		2
292	How to implement Super-Twisting Controller based on sliding mode observer? **2014**,		24
291	Fault detection for nonlinear non-affine systems via sliding-mode output-feedback and HOSM differentiator **2014**,		1
290	Nested backward compensation of unmatched perturbations via HOSM observation. *Journal of the Franklin Institute*, **2014**, 351, 2397-2410	4	13
289	Super twisting control of a parametrically excited overhead crane. *Journal of the Franklin Institute*, **2014**, 351, 2283-2298	4	33
288	Decentralised Observation Using Higher Order Sliding Mode Techniques. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2014**, 47, 4613-4618		3
287	Estimation of Lateral Dynamics and Road Curvature for Two-Wheeled Vehicles: A HOSM Observer approach. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2014**, 47, 2806-2811		4
286	Decentralised control for complex systems - an invited survey. *International Journal of Modelling, Identification and Control*, **2014**, 22, 285	0.6	11
285	Fatigue state recognition based on improved ICA-HMM. *International Journal of Modelling, Identification and Control*, **2014**, 22, 334	0.6	1
284	Pole-Placement in Higher-Order Sliding-Mode Control. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2014**, 47, 1386-1391		9
283	SMC with linear dynamic compensator design: Performance margins approach **2014**,		2
282	ISS-Lyapunov functions for output feedback sliding modes **2014**,		1
281	Disturbance Observer Based Control: Aerospace Applications. *Control Engineering*, **2014**, 291-320	1	2
280	Observation and Identification via HOSM Observers. *Control Engineering*, **2014**, 251-290	1	2
279	Higher-Order Sliding Mode Controllers and Differentiators. *Control Engineering*, **2014**, 213-249	1	15
278	Discrete-time non-linear state observer based on a super twisting-like algorithm. *IET Control Theory and Applications*, **2014**, 8, 803-812	2.5	26

277	Second order sliding mode control of a mobile hydraulic crane **2014**,		8
276	Non-minimum phase switched systems: HOSM-based fault detection and fault identification via Volterra integral equation. *International Journal of Adaptive Control and Signal Processing*, **2014**, 28, 1372-1397	2.8	11
275	Second-Order Sliding Mode Controllers and Differentiators. *Control Engineering*, **2014**, 143-182	1	7
274	Conventional Sliding Modes. *Control Engineering*, **2014**, 43-104	1	9
273	Analysis of Sliding Mode Controllers in the Frequency Domain. *Control Engineering*, **2014**, 183-211	1	2
272	Integral sliding-mode control for linear time-invariant implicit systems. *Automatica*, **2014**, 50, 971-975	5.7	46
271	Magnetic Bearing **2014**, 115-121		1
270	Integral Sliding Mode Control **2014**, 11-20		4
269	Observer Based on ISM **2014**, 21-30		1
268	Output Integral Sliding Mode Based Control **2014**, 31-41		1
267	The Robust Maximum Principle **2014**, 45-57		4
266	Multimodel and ISM Control **2014**, 59-75		3
265	Multiplant and ISM Output Control **2014**, 77-93		2
264	Stewart Platform **2014**, 103-113		2
263	Unmatched uncertainties compensation based on high-order sliding mode observation. *International Journal of Robust and Nonlinear Control*, **2013**, 23, 754-764	3.6	34
262	Robust exact uniformly convergent arbitrary order differentiator. *Automatica*, **2013**, 49, 2489-2495	5.7	152
261	High-order sliding-mode control for blood glucose: Practical relative degree approach. *Control Engineering Practice*, **2013**, 21, 747-758	3.9	73
260	Control of a Parametrically Excited Crane: A Vector Lyapunov Approach. *IEEE Transactions on Control Systems Technology*, **2013**, 21, 2332-2340	4.8	47

259	High-order sliding-mode control for anesthesia. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2013**, 2013, 201-4	0.9	
258	Cascaded-based stabilization of time-varying systems using second-order sliding modes. *IMA Journal of Mathematical Control and Information*, **2013**, 30, 115-128	1.1	6
257	Experimental results applying second order sliding mode control to a PEM fuel cell based system. *Control Engineering Practice*, **2013**, 21, 719-726	3.9	41
256	Higher Order Sliding Mode Based Accurate Tracking of Unmatched Perturbed Outputs. *Lecture Notes in Control and Information Sciences*, **2013**, 117-144	0.5	3
255	Sliding Mode Control in Heavy Vehicle Safety. *Lecture Notes in Control and Information Sciences*, **2013**, 313-340	0.5	1
254	A Review on Self-oscillating Relay Feedback Systems and Its Application to Underactuated Systems with Degree of Underactuation One. *Lecture Notes in Control and Information Sciences*, **2013**, 187-205	0.5	1
253	Output-feedback finite-time stabilization of disturbed feedback linearizable nonlinear systems. *Automatica*, **2013**, 49, 2767-2773	5.7	27
252	Second order sliding mode tracking controller for inertia wheel pendulum. *Journal of the Franklin Institute*, **2013**, 350, 92-106	4	30
251	Dynamic surface for output feedback sliding modes, the case of relative degree two **2013**,		2
250	MATLAB Toolbox for singular LQ based Sliding Mode Control design **2013**,		1
249	Fast second-order Sliding Mode Control design based on Lyapunov function **2013**,		6
248	Lyapunov-Designed Super-Twisting Sliding Mode Control for Wind Energy Conversion Optimization. *IEEE Transactions on Industrial Electronics*, **2013**, 60, 538-545	8.9	135
247	Performance margins in conventional and second order sliding mode controllers **2013**,		6
246	Lean and steering motorcycle dynamics reconstruction: An unknown-input HOSMO approach **2013**,		6
245	Integral Higher Order Sliding Mode and singular optimal stabilization **2013**,		2
244	Output-feedback finite-time stabilization of disturbed LTI systems. *Automatica*, **2012**, 48, 606-611	5.7	38
243	Non-linear sliding surface: towards high performance robust control. *IET Control Theory and Applications*, **2012**, 6, 235	2.5	38
242	Output integral sliding mode control to stabilize position of a Stewart platform. *Journal of the Franklin Institute*, **2012**, 349, 1526-1542	4	22

241	Robust output Nash strategies based on sliding mode observation in a two-player differential game. *Journal of the Franklin Institute*, **2012**, 349, 1416-1429	4	7
240	History-dependent modified sliding mode interception strategies with maximal capture zone. *Journal of the Franklin Institute*, **2012**, 349, 638-657	4	13
239	Position stabilization of a Stewart platform: High-order sliding mode observers based approach. *Journal of the Franklin Institute*, **2012**, 349, 441-455	4	21
238	Super twisting control algorithm for the attitude tracking of a four rotors UAV. *Journal of the Franklin Institute*, **2012**, 349, 685-699	4	204
237	Advances in Guidance and Control of Aerospace Vehicles using Sliding Mode Control and Observation Techniques. *Journal of the Franklin Institute*, **2012**, 349, 391-396	4	13
236	Optimal sliding mode algorithms for dynamic systems. *Journal of the Franklin Institute*, **2012**, 349, 1317-1322	4	14
235	Two relay controller for real time trajectory generation and its application to inverted orbital stabilization of inertia wheel pendulum via quasi-continuous HOSM. *Asian Journal of Control*, **2012**, 14, 58-66	1.7	7
234	Manipulator Fault Diagnosis via Higher Order Sliding-Mode Observers. *IEEE Transactions on Industrial Electronics*, **2012**, 59, 3979-3986	8.9	88
233	Interval estimation for LPV systems applying high order sliding mode techniques. *Automatica*, **2012**, 48, 2365-2371	5.7	133
232	On the second order sliding mode control of a parametrically excited overhead-crane **2012**,		1
231	Observer design for a class of hyperbolic PDE equation based on a Distributed Super Twisting Algorithm **2012**,		5
230	Steering Control for Rollover Avoidance of Heavy Vehicles. *IEEE Transactions on Vehicular Technology*, **2012**, 61, 3499-3509	6.8	42
229	High-order sliding mode observers for nonlinear autonomous switched systems with unknown inputs. *Journal of the Franklin Institute*, **2012**, 349, 2975-3002	4	41
228	Variable Gain Super-Twisting Sliding Mode Control. *IEEE Transactions on Automatic Control*, **2012**, 57, 2100-2105	5.9	222
227	State estimation for linear switched systems with unstable invariant zeros and unknown inputs **2012**,		3
226	Asymptotic stabilization in fixed time via sliding mode control **2012**,		4
225	High-order sliding modes observers for linear autonomous-switched systems with unknown inputs **2012**,		1
224	Decentralised variable structure observers for nonlinear time delay systems with unknown interconnections **2012**,		1

223	Generating oscillations in inertia wheel pendulum via two-relay controller. *International Journal of Robust and Nonlinear Control*, **2012**, 22, 318-330	3.6	17
222	State Observation for Nonlinear Switched Systems Using Nonhomogeneous High-Order Sliding Mode Observers. *Asian Journal of Control*, **2012**, 14, 911-923	1.7	23
221	Second order sliding mode control of a 3-Dimensional Overhead-Crane **2012**,		5
220	Phase and gain margins in systems with SMC/HOSM **2012**,		3
219	Experimental glucose regulation with a high-order sliding-mode controller. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2012**, 2012, 2056-9	0.9	
218	Optimal gain for the Super-Twisting differentiator in the presence of measurement noise **2012**,		3
217	The differentiation error of noisy signals using the Generalized Super-Twisting differentiator **2012**,		13
216	Design of a prescribed convergence time uniform Robust Exact Observer in the presence of measurement noise **2012**,		18
215	Identification of heavy vehicle parameters and impact forces estimation: Experimental results **2012** ,		1
214	Integral sliding mode control for linear time-invariant implicit descriptions **2012**,		4
213	Output feedback adaptive twisting control: A Lyapunov design **2012**,		11
212	Uniform sliding mode controllers and uniform sliding surfaces. *IMA Journal of Mathematical Control and Information*, **2012**, 29, 491-505	1.1	23
211	Phase and Gain Margins with Third Order Sliding Mode Control: An Integrated Guidance Application **2012**,		2
210	External Perturbation Estimation based on Super-Twisting Algorithm for Attitude Control of UAVs. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2012**, 45, 746-752		0
209	Fault Detection and Isolation for Nonlinear Systems via HOSM Multiple-Observer*. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2012**, 45, 534-539		2
208	State Estimation for Linear Switched Systems with Unknown Inputs*. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2012**, 45, 271-276		4
207	A third-order sliding-mode observer for a continuous delay chaotic system. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2012**, 45, 175-180		1
206	Application of Interval Observers and HOSM Differentiators for Fault Detection. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2012**, 45, 516-521		4

205	State Estimation and Fault Detection for Linear Switched Systems with Unstable Internal Dynamics*. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2012**, 45, 522-527		1
204	High-order sliding-mode control for blood glucose regulation in the presence of uncertain dynamics. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2011**, 2011, 3998-4001	0.9	1
203	Robust Control With Exact Uncertainties Compensation: With or Without Chattering?. *IEEE Transactions on Control Systems Technology*, **2011**, 19, 969-975	4.8	64
202	Robust exact finite-time output based control using high-order sliding modes. *International Journal of Systems Science*, **2011**, 42, 1847-1857	2.3	22
201	Sliding Mode Based Analysis and Identification of Vehicle Dynamics. *Lecture Notes in Control and Information Sciences*, **2011**,	0.5	25
200	Unknown input reconstruction for nonlinear autonomous switched systems via high-order sliding modes observers **2011**,		1
199	Integral Sliding Mode Control for Nonlinear Systems With Matched and Unmatched Perturbations. *IEEE Transactions on Automatic Control*, **2011**, 56, 2699-2704	5.9	162
198	High-Order Block Sliding-Mode Controller for a Synchronous Generator With an Exciter System. *IEEE Transactions on Industrial Electronics*, **2011**, 58, 337-347	8.9	32
197	Adaptive Gains Super-Twisting Algorithm for Systems with Growing Perturbations. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2011**, 44, 3039-3044		6
196	Generalized Super-Twisting Observer for Nonlinear Systems. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2011**, 44, 14353-14358		5
195	On Functional Observers for Linear Systems with Unknown Inputs and HOSM Differentiators. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2011**, 44, 1922-1927		0
194	Dynamic switching surfaces for output sliding mode control: An . *Automatica*, **2011**, 47, 1957-1961	5.7	19
193	**2011**,		2
192	Discrete time supper-twisting observer for 2n dimensional systems **2011**,		2
191	Uniform Robust Exact Differentiator. *IEEE Transactions on Automatic Control*, **2011**, 56, 2727-2733	5.9	265
190	Global sliding-mode observer with adjusted gains for locally Lipschitz systems. *Automatica*, **2011**, 47, 565-570	5.7	64
189	Approximability of nonlinear affine control systems. *Nonlinear Analysis: Hybrid Systems*, **2011**, 5, 275-288	4.5	12
188	High-order sliding-mode observation for linear systems with unknown inputs. *Nonlinear Analysis: Hybrid Systems*, **2011**, 5, 189-205	4.5	52

187	Second-order uniform exact sliding mode control with uniform sliding surface **2011**,		5
186	State exact reconstruction for switched linear systems via a super-twisting algorithm. *International Journal of Systems Science*, **2011**, 42, 717-724	2.3	31
185	Adaptive twist sliding mode control: A Lyapunov design **2011**,		24
184	An exact and uniformly convergent arbitrary order differentiator **2011**,		10
183	High-Order Sliding-Mode control of blood glucose concentration via practical relative degree identification **2011**,		3
182	Sliding Mode Enforcement after 1990: Main Results and Some Open Problems. *Lecture Notes in Control and Information Sciences*, **2011**, 3-57	0.5	10
181	Force feedback control based on VGSTA for single track riding simulator **2011**,		1
180	Lyapunov stability analysis of a twisting based control algorithm for systems with unmatched perturbations **2011**,		1
179	A Hybrid Robust Non-Homogeneous Finite-Time Differentiator. *IEEE Transactions on Automatic Control*, **2011**, 56, 1213-1219	5.9	55
178	Variable structure methods for hybrid systems. *International Journal of Systems Science*, **2011**, 42, 1843-1845	2.3	2
177	State observation for non-linear switched systems using non-homogeneous HOSM observers **2010**,		1
176	Finite-time parameter identification via high-order sliding mode observer **2010**,		2
175	Output nested backward compensation of unmatched effects of unknown inputs **2010**,		2
174	Design of mixed Luenberger and sliding continuous mode observer using sampled output information **2010**,		3
173	Super-twisting adaptive sliding mode control: A Lyapunov design **2010**,		103
172	Design of variable gain super-twisting observer for nonlinear systems with sampled output **2010**,		2
171	Uniform Second-Order Sliding Mode Observer for mechanical systems **2010**,		52
170	Variable gains super-twisting algorithm: A Lyapunov based design **2010**,		38

169	Output feedback design for exact state stability of flat nonlinear systems **2010**,		5
168	Accuracy of Homogeneous Sliding Modes in the Presence of Fast Actuators. *IEEE Transactions on Automatic Control*, **2010**, 55, 810-814	5.9	46
167	High order sliding mode observer for linear systems with unbounded unknown inputs. *International Journal of Control*, **2010**, 83, 1920-1929	1.5	96
166	Higher Order Sliding Mode observers for actuator faults Diagnosis in robot manipulators **2010**,		3
165	Super twisting control algorithm for the four rotors helicopter attitude tracking problem **2010**,		17
164	Optimal disturbance rejection via integral sliding mode control for uncertain systems in regular form **2010**,		8
163	Design of compensators for second order sliding modes **2010**,		4
162	Uniform Robust Exact Differentiator **2010**,		7
161	Finite-time convergence analysis for Twisting controller via a strict Lyapunov function **2010**,		24
160	Variable gain sliding mode observer for heavy duty vehicle tyre forces estimation **2010**,		5
159	Integral HOSM Semiglobal Controller for Finite-Time Exact Compensation of Unmatched Perturbations. *IEEE Transactions on Automatic Control*, **2010**, 55, 2645-2649	5.9	42
158	HYBRID OBSERVERS FOR LOCALLY LIPSCHITZ SYSTEMS WITH HIGH RELATIVE DEGREE. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2010**, 43, 927-932		1
157	Quasi-continuous HOSM control for systems with unmatched perturbations. *Automatica*, **2010**, 46, 1916-1919	5.7	81
156	A new structure for a nonlinear observer: A sliding mode based solution **2009**,		1
155	Optimal Lyapunov function selection for reaching time estimation of Super Twisting algorithm **2009**,		45
154	Unbounded unknown inputs estimation based on high-order sliding mode differentiator **2009**,		3
153	Output-based Finite Time Control of LTI systems with matched perturbations using HOSM **2009**,		3
152	Synchronization in reduced-order of chaotic systems via control approaches based on high-order sliding-mode observer. *Chaos, Solitons and Fractals*, **2009**, 42, 3219-3233	9.3	15

151	Output Integral Sliding Mode for Min-Max Optimization of Multi-Plant Linear Uncertain Systems. *IEEE Transactions on Automatic Control*, **2009**, 54, 2611-2620	5.9	19
150	**2009**,		2
149	Finite-time state observation for non-linear uncertain systems via higher-order sliding modes. *International Journal of Control*, **2009**, 82, 1564-1574	1.5	50
148	Generating self-excited oscillations for underactuated mechanical systems via two-relay controller. *International Journal of Control*, **2009**, 82, 1678-1691	1.5	12
147	On the Transfer Properties of the Generalized Sub-Optimal Second-Order Sliding Mode Control Algorithm. *IEEE Transactions on Automatic Control*, **2009**, 54, 399-403	5.9	19
146	Generating Self-Excited Oscillations via Two-Relay Controller. *IEEE Transactions on Automatic Control*, **2009**, 54, 416-420	5.9	52
145	Unknown Input and State Estimation for Unobservable Systems. *SIAM Journal on Control and Optimization*, **2009**, 48, 1155-1178	1.9	58
144	Exact Observer for Switching Linear Systems via Super-Twisting Algorithm. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2009**, 42, 370-375		
143	Experimental Validation of Unknown Inputs Estimation Via High Order Sliding Mode Observer. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2009**, 42, 413-419		
142	Continuity Properties of Nonlinear Affine Control Systems: Applications to Hybrid and Sliding Mode Dynamics. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2009**, 42, 204-209		5
141	High-order sliding modes observer for linear systems with unbounded unknown inputs. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2009**, 42, 216-221		2
140	OPTIMAL AND ROBUST SLIDING MODE CONTROL FOR LINEAR SYSTEMS WITH MULTIPLE TIME DELAYS IN CONTROL INPUT. *Asian Journal of Control*, **2008**, 5, 557-567	1.7	32
139	ESTIMATION OF AMPLITUDE OF OSCILLATIONS IN SLIDING MODE SYSTEMS CAUSED BY TIME DELAY. *Asian Journal of Control*, **2008**, 6, 507-513	1.7	5
138	Observation and Identification Via High-Order Sliding Modes **2008**, 293-319		7
137	Super-twisting sliding mode control for unified power flow controller in power systems **2008**,		1
136	Second order SM unified power flow controller for power systems **2008**,		1
135	Discrete-time sliding mode neural observer for continuous time mechanical systems **2008**,		2
134	. *IEEE Transactions on Industrial Electronics*, **2008**, 55, 3846-3854	8.9	102

133	Robust Semiglobal Stabilization of the Second Order System by Relay Feedback with an Uncertain Variable Time Delay. *SIAM Journal on Control and Optimization*, **2008**, 47, 196-217	1.9	21
132	Vehicle Parameter and States Estimation Via Sliding Mode Observers **2008**, 345-362		4
131	High-order sliding modes observation **2008**,		2
130	Identification based generation of self-excited oscillations for underactuated mechanical systems via two-relay algorithm **2008**,		4
129	Two-Stage Neural Observer for Mechanical Systems. *IEEE Transactions on Circuits and Systems II: Express Briefs*, **2008**, 55, 1076-1080	3.5	22
128	Parameter identification via modified twisting algorithm. *International Journal of Control*, **2008**, 81, 788-796	1.9	6
127	Second order sliding-mode observer for estimation of vehicle dynamic parameters. *International Journal of Vehicle Design*, **2008**, 48, 190	2.4	37
126	Observation of a class of quasilinear systems by quasi-continuous high-order sliding modes **2008**,		2
125	A Comprehensive Analysis of Chattering in Second Order Sliding Mode Control Systems **2008**, 23-49		2
124	High-order sliding observation and fault detection **2008**,		2
123	**2008**,		6
122	Exact compensation of unmatched perturbation via quasi-continuous HOSM **2008**,		15
121	Quasi-continuous high order sliding modes controllers applied to glucose-insulin regulatory system models **2008**,		8
120	Decomposition of existence and stability analysis of periodic solutions of systems with impacts: Application to bipedal walking robot **2008**,		1
119	Road profile estimation in heavy vehicle dynamics simulation. *International Journal of Vehicle Design*, **2008**, 47, 234	2.4	19
118	Vehicle parameter estimation and stability enhancement using sliding modes techniques. *International Journal of Vehicle Design*, **2008**, 48, 230	2.4	18
117	On the transfer properties of second-order sliding mode control systems. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2008**, 41, 3823-3829		
116	High-Order Sliding-Mode Observation of Linear Systems with Unknown Inputs. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2008**, 41, 4779-4790		7

115	Second order sliding mode and adaptive observers for a chaotic system: a comparative study. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2008**, 41, 4791-4796		
114	Vehicle Parameter Estimation and Stability Enhancement. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2008**, 41, 5700-5705		
113	Higher-order sliding-mode observer for state estimation and input reconstruction in nonlinear systems. *International Journal of Robust and Nonlinear Control*, **2008**, 18, 399-412	3.6	225
112	Analysis of response of second-order sliding mode controllers to external inputs in frequency domain. *International Journal of Robust and Nonlinear Control*, **2008**, 18, 502-514	3.6	14
111	High-order sliding-mode observer for a quadrotor UAV. *International Journal of Robust and Nonlinear Control*, **2008**, 18, 427-440	3.6	176
110	Robust excitation control design using sliding-mode technique for multimachine power systems. *Electric Power Systems Research*, **2008**, 78, 1627-1634	3.5	57
109	Quasi-continuous high-order sliding-mode controllers for reduced-order chaos synchronization. *International Journal of Non-Linear Mechanics*, **2008**, 43, 948-961	2.8	18
108	An Alternative to the Measurement of Five-Links Biped Robot Absolute Orientation: Estimation Based on High Order Sliding Mode. *Lecture Notes in Control and Information Sciences*, **2008**, 363-380	0.5	2
107	Higher Order SM Block-Control of Nonlinear Systems with Unmodeled Actuators: Application to Electric Power Systems and Electrohydraulic Servo-Drives **2008**, 401-425		4
106	Describing function analysis of second-order sliding mode observers. *International Journal of Systems Science*, **2007**, 38, 817-824	2.3	8
105	Observation of linear systems with unknown inputs via high-order sliding-modes. *International Journal of Systems Science*, **2007**, 38, 773-791	2.3	140
104	Estimation of unknown inputs, with application to fault detection, via partial hierarchical observation **2007**,		3
103	A new diagnosis strategy based on the online estimation of the tire pressure **2007**,		4
102	High-order sliding-mode observation and fault detection via weakly unobservable subspace reconstruction **2007**,		4
101	Numerical method for weights adjustment in minimax multi-model LQ-control. *Optimal Control Applications and Methods*, **2007**, 28, 289-300	1.7	7
100	Optimal and robust control for linear state-delay systems. *Journal of the Franklin Institute*, **2007**, 344, 830-845	4	55
99	Robust observation and identification of nDOF Lagrangian systems. *International Journal of Robust and Nonlinear Control*, **2007**, 17, 842-861	3.6	28
98	Exact state estimation for linear systems with unknown inputs based on hierarchical super-twisting algorithm. *International Journal of Robust and Nonlinear Control*, **2007**, 17, 1734-1753	3.6	81

97	Backlash phenomenon observation and identification in electromechanical system. *Control Engineering Practice*, **2007**, 15, 447-457	3.9	60
96	Output hierarchical super twisting observation based robust feedback control: With or without chattering? **2007**,		5
95	Hierarchical observer for strongly detectable systems via second order sliding mode **2007**,		7
94	State Estimation and Input Reconstruction in Nonlinear Systems via Higher Order Sliding Mode Observer. *Proceedings of the American Control Conference*, **2007**,	1.2	11
93	Editorial 2: Sliding mode observation and identification. *International Journal of Systems Science*, **2007**, 38, 845-846	2.3	6
92	Min-Max Output Integral Sliding Mode Control for Multiplant Linear Uncertain Systems. *Proceedings of the American Control Conference*, **2007**,	1.2	3
91	Hierarchical second-order sliding-mode observer for linear time invariant systems with unknown inputs. *International Journal of Systems Science*, **2007**, 38, 793-802	2.3	24
90	Sliding mode identification and control for linear uncertain stochastic systems. *International Journal of Systems Science*, **2007**, 38, 861-869	2.3	43
89	Fault Reconstruction in a Leader/Follower Spacecraft System Using Higher Order Sliding Mode Observers. *Proceedings of the American Control Conference*, **2007**,	1.2	11
88	High-order sliding-mode observation and fault detection **2007**,		12
87	Sliding mode observers to replace vehicles expensive sensors and to preview driving critical situations. *International Journal of Vehicle Autonomous Systems*, **2007**, 5, 345	0.4	7
86	Output integral sliding mode control based on algebraic hierarchical observer. *International Journal of Control*, **2007**, 80, 443-453	1.5	35
85	Analysis of Chattering in Systems With Second-Order Sliding Modes. *IEEE Transactions on Automatic Control*, **2007**, 52, 2085-2102	5.9	209
84	Editorial 1: Higher order sliding mode observers. *International Journal of Systems Science*, **2007**, 38, 771-773	2.3	3
83	Performance Analysis of Second-Order Sliding-Mode Control Systems With Fast Actuators. *IEEE Transactions on Automatic Control*, **2007**, 52, 1053-1059	5.9	31
82	Vehicle Parameter Estimation and Stability Enhancement using the Principles of Sliding Mode. *Proceedings of the American Control Conference*, **2007**,	1.2	4
81	Estimation of the Unknown Inputs and Vertical Forces of the Heavy Vehicle Via Higher Order Sliding Mode Observer. *Intelligent Vehicles Symposium, 2009 IEEE*, **2007**,		4
80	Cheap Suboptimal Control of an Integral Sliding Mode for Uncertain Systems With Delays. *IEEE Transactions on Automatic Control*, **2007**, 52, 1892-1898	5.9	12

79	Periodic motion of underactuated mechanical systems self-generated by variable structure controllers: Design and experiments **2007**,		4
78	Output integral sliding mode with application to the LQ - optimal control **2006**,		3
77	Output Excitation via Continuous Sliding-Modes to Generate Periodic Motion in Underactuated Systems **2006**,		2
76	Hierarchical Second-Order Sliding-Mode Observer for Linear Systems with Unknown Inputs **2006**,		4
75	Frequency domain analysis of second order sliding modes **2006**,		2
74	Frequency domain input-output analysis of sliding mode observers **2006**,		1
73	High-Order Sliding-Mode Observation and Identification for Linear Systems with Unknown Inputs **2006**,		20
72	Backlash phenomenon observation and identification **2006**,		3
71	Generation of periodic motions for underactuated mechanical system via second-order sliding-modes **2006**,		6
70	Describing function analysis of second order sliding mode observers **2006**,		1
69	Observation and identification of mechanical systems via second order sliding modes. *International Journal of Control*, **2006**, 79, 1251-1262	1.5	141
68	Second order sliding mode observer for estimation of velocities, wheel sleep, radius and stiffness **2006**,		22
67	Sliding Mode Observers for the Estimation of Vehicle Parameters, Forces and States of the Center of Gravity **2006**,		19
66	Frequency Domain Input-Output Analysis of Sliding-Mode Observers. *IEEE Transactions on Automatic Control*, **2006**, 51, 1798-1803	5.9	12
65	High-Order Sliding-Mode Observer for Linear Systems with Unknown Inputs **2006**,		4
64	Variable structure control of synchronous generator: singularly perturbed analysis. *International Journal of Control*, **2006**, 79, 1-13	1.5	15
63	Analysis and design of integral sliding manifolds for systems with unmatched perturbations. *IEEE Transactions on Automatic Control*, **2006**, 51, 853-858	5.9	371
62	Parameter tuning of second-order sliding mode controllers for linear plants with dynamic actuators. *Automatica*, **2006**, 42, 833-839	5.7	46

61	Discussion on: "Dynamic Sliding Mode Control for a Class of Systems with Mismatched Uncertainty" *European Journal of Control*, **2005**, 11, 16-17	2.5	
60	Analysis of chattering in continuous sliding-mode controllers. *IEEE Transactions on Automatic Control*, **2005**, 50, 1442-1446	5.9	230
59	Second-order sliding-mode observer for mechanical systems. *IEEE Transactions on Automatic Control*, **2005**, 50, 1785-1789	5.9	735
58	OSCILLATIONS ANALYSIS IN NONLINEAR VARIABLE-STRUCTURE SYSTEMS WITH SECOND-ORDER SLIDING-MODES AND DYNAMIC ACTUATORS. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2005**, 38, 860-865		
57	HIGH ORDER SLIDING MODE CONTROLLERS AND DIFFERENTIATORS FOR A SYNCHRONOUS GENERATOR WITH EXCITER DYNAMICS. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2005**, 38, 55-60		
56	INTEGRAL SLIDING SURFACE DESIGN USING AN H∞ CRITERION FOR DECENTRALIZED CONTROL. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2005**, 38, 699-704		
55	Decomposition of the mini-max multi-model problem via integral sliding mode. *International Journal of Robust and Nonlinear Control*, **2005**, 15, 559-574	3.6	17
54	Integral sliding mode design for robust filtering and control of linear stochastic time-delay systems. *International Journal of Robust and Nonlinear Control*, **2005**, 15, 407-421	3.6	88
53	On nonlinear H∞ sliding mode control for a class of nonlinear cascade systems. *International Journal of Systems Science*, **2005**, 36, 983-992	2.3	12
52	Nonlocal stabilization via delayed relay control rejecting uncertainty in a time delay. *International Journal of Robust and Nonlinear Control*, **2004**, 14, 15-37	3.6	20
51	Fast oscillations in feedback control systems with fast actuators driven by the second-order sliding mode 'suboptimal' algorithm **2004**,		2
50	Mini-max integral sliding-mode control for multimodel linear uncertain systems. *IEEE Transactions on Automatic Control*, **2004**, 49, 97-102	5.9	58
49	Analysis of second-order sliding-mode algorithms in the frequency domain. *IEEE Transactions on Automatic Control*, **2004**, 49, 946-950	5.9	115
48	Decomposition of the Mini-Max Multimodel Control via Integral Sliding Mode. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2004**, 37, 423-428		
47	Robust Semiglobal Stabilization of the Second Order System by Relay Feedback with an Uncertain Variable Time Delay. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2004**, 37, 429-434		
46	Application of the Boundary Function Method to Finding Slow Periodic Solutions of Singularly Perturbed Bang-Bang Systems. *Differential Equations*, **2003**, 39, 256-266	0.7	1
45	Chattering analysis in sliding mode systems with inertial sensors. *International Journal of Control*, **2003**, 76, 906-912	1.5	116
44	Stabilization of amplitude of oscillations via relay delay control. *International Journal of Control*, **2003**, 76, 770-780	1.5	13

43	Slow periodic motions with internal sliding modes in variable structure systems. *International Journal of Control*, **2002**, 75, 524-537	1.5	21
42	Sliding Mode Control for Systems with Fast Actuators: Singularly Perturbed Approach **2002**, 391-415		7
41	SLOW PERIODIC MOTIONS WITH INTERNAL SLIDING MODES IN VARIABLE STRUCTURE SYSTEMS. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2002**, 35, 459-464		
40	Singularly perturbed analysis of chattering in relay control systems. *IEEE Transactions on Automatic Control*, **2002**, 47, 2079-2084	5.9	119
39	Slow periodic motions in variable structure systems. *International Journal of Systems Science*, **2002**, 33, 1145-1155	2.3	15
38	Robust eigenvalue assignment for uncertain delay control systems. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2001**, 34, 213-218		7
37	Chattering in Systems with Inertial Sensors: The Singularly Perturbed Approach. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2001**, 34, 599-604		0
36	Relay Control of oscillations amplitudes for systems with dela. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2001**, 34, 219-223		
35	. *IEEE Transactions on Automatic Control*, **2001**, 46, 1260-1265	5.9	160
34	Steady Modes in Relay Control Systems With Time Delay and Periodic Disturbances. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2000**, 122, 732-737	1.6	57
33	PERIODIC MOTIONS IN VSS AND SINGULAR PERTURBATIONS **2000**,		3
32	The problem of chattering: an averaging approach **1999**, 363-386		26
31	Sliding modes and fast periodic oscillations of singularly perturbed relay control systems **1998**,		1
30	Vibration damping in elastic robotic structures via sliding modes. *Journal of Field Robotics*, **1997**, 14, 675-696		18
29	Higher order sliding modes as a natural phenomenon in control theory **1996**, 107-133		116
28	Looking for "indicants" in the differential diagnosis of jaundice. *Medical Decision Making*, **1986**, 6, 36-41	2.5	20
27	LQG-robust sliding mode control for linear stochastic systems with uncertainties		2
26	Observation and Estimation of Dynamics Performance of Heavy Vehicle Via Second Order Sliding Modes		3

List of Publications

7	Robust integral sliding mode regulator for linear systems with time delay in control input		3
6	Robust design Criteria for Integral Sliding Surfaces		3
5	Homogeneous Sliding Modes in The Presence of Fast Actuators		2
4	Optimal and robust integral sliding mode filter design for systems with continuous and delayed measurements		20
3	Sliding surface design for higher-order sliding modes29-55		3
2	Robust output control of systems subjected to perturbations via high-order sliding modes observation and identification57-76		2
1	Adaptive sliding mode control with guaranteed performance based on monitoring and barrier functions. *International Journal of Adaptive Control and Signal Processing,*	2.8	3