

On the discrete-time bounded real Lemma with applications to state feedback controllers

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5	Robust Control and Filtering of Discrete-Time Uncertain Dynamical Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1992, 25, 160-163.	0.4	2
6	ROBUST CONTROL AND FILTERING OF DISCRETE-TIME UNCERTAIN DYNAMICAL SYSTEMS. , 1992, , 160-163.		1
7	Robust control of discrete time uncertain dynamical systems. Automatica, 1993, 29, 1133-1137.	3.0	53
8	The bounded real lemma for discrete time-varying systems with application to robust output feedback. , 0, , .		3
9	Decentralized output feedback control of discrete-time interconnected uncertain systems. , 0, , .		3
10	On the design of fixed-structure H_2 optimal controllers. , 0, , .		12
11	Robust stabilization and disturbance attenuation for discrete-time systems with structured nonlinearities. , 0, , .		3
12	H_2 control of discrete-time uncertain systems. IEEE Transactions on Automatic Control, 1994, 39, 1072-1075.	3.6	28
13	Covariance bounds for discrete-time linear systems with time-varying parameter uncertainty. International Journal of Control, 1994, 60, 1307-1317.	1.2	5
14	H_2 filter design for discrete-time uncertain nonlinear systems. , 0, , .		1
15	Infinite horizon disturbance attenuation for discrete-time systems. A Popov-Yakubovich approach. Integral Equations and Operator Theory, 1994, 19, 153-215.	0.4	12
16	Robust Kalman filtering for uncertain discrete-time systems. IEEE Transactions on Automatic Control, 1994, 39, 1310-1314.	3.6	468
17	H_2 output feedback control for discrete-time systems. , 0, , .		6
18	discrete-time nonlinear H_2 control with measurement feedback. Automatica, 1995, 31, 419-434.	3.0	49

#	ARTICLE	IF	CITATIONS
19	H/sub \hat{z} / decentralized output feedback control for discrete-time uncertain systems. , 0, , .		0
20	RICCATI DIFFERENCE EQUATIONS FOR DISCRETE TIME SPECTRAL FACTORIZATION WITH UNIT CIRCLE ZEROS. , 1995, , 311-326.		1
21	Discrete-time algebraic Riccati equation arising in H/sub \hat{z} / filtering problem. , 0, , .		1
22	Robust discrete-time minimum-variance filtering. IEEE Transactions on Signal Processing, 1996, 44, 181-189.	3.2	239
23	Output feedback H \hat{z} control of systems with parameter uncertainty. International Journal of Control, 1996, 63, 741-750.	1.2	1,466
24	Discrete-time H \hat{z} algebraic Riccati equation and parametrization of all H \hat{z} filters. International Journal of Control, 1996, 64, 1129-1149.	1.2	44
25	A Design Methodology for Robust Two-Degree-of-Freedom Digital Repetitive Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1996, 29, 1470-1475.	0.4	1
26	On quadratic Liapunov functionals for linear difference equations. Linear Algebra and Its Applications, 1996, 240, 41-64.	0.4	42
27	Quadratic guaranteed cost control with robust pole placement in a disk. IET Control Theory and Applications, 1996, 143, 37-43.	1.7	32
28	Robust H/sub \hat{z} / FIR filter for discrete-time uncertain systems. , 0, , .		6
29	H/sub \hat{z} -control of discrete-time nonlinear systems. IEEE Transactions on Automatic Control, 1996, 41, 494-510.	3.6	148
30	\hat{z} -output feedback control for linear discrete time-varying systems via the bounded real lemma. International Journal of Control, 1996, 65, 963-993.	1.2	8
31	Optimal filtering schemes for linear discrete-time systems-an LMI approach. , 0, , .		14
32	Fixed-structure discrete-time mixed H/sub 2/H/sub ∞ controller synthesis using the delta-operator. , 1997, , .		1
33	Fixed-structure discrete-time H/sub 2-optimal controller synthesis using the delta operator. , 1997, , .		4
34	A link between H ∞ and \hat{z} control of a discrete-time nonlinear system and its linearization. , 1997, , .		1
35	Optimal filtering schemes for linear discrete-time systems: a linear matrix inequality approach. International Journal of Systems Science, 1998, 29, 587-593.	3.7	25
36	Stabilization and disturbance attenuation of uncertain discrete-time linear systems. International Journal of Systems Science, 1998, 29, 1313-1323.	3.7	6

#	ARTICLE	IF	CITATIONS
37	Mixed $L_2/L_\infty/H_\infty$ filtering for uncertain linear systems: An LMI approach. , 0, , .		1
38	Dissipative control for linear discrete-time systems. Automatica, 1999, 35, 1557-1564.	3.0	109
39	H_∞ control for discrete-time linear systems with Frobenius norm-bounded uncertainties. Automatica, 1999, 35, 1625-1631.	3.0	20
40	H_2/H_∞ optimal envelope-constrained FIR filter design: an LMI approach. , 0, , .		0
41	Robust H_2/H_∞ FIR filtering for uncertain time-varying nonlinear systems. , 0, , .		0
42	Robust H_∞ control of discrete systems with uncertain parameters and unknown delays. Automatica, 2000, 36, 627-635.	3.0	77
43	Robust filter design with pole constraints for discrete-time systems. Journal of the Franklin Institute, 2000, 337, 713-723.	1.9	36
44	Solutions for H_∞ Filtering of Two-Dimensional Systems. Multidimensional Systems and Signal Processing, 2000, 11, 301-320.	1.7	24
45	Envelope-constrained H_2/H_∞ FIR filter design. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 2000, 47, 79-82.	2.3	10
46	Extensions of the bounded real lemma of discrete-time systems. International Journal of Control, 2000, 73, 1322-1328.	1.2	0
47	H_2/H_∞ filtering of 2-D discrete systems. IEEE Transactions on Signal Processing, 2000, 48, 1760-1768.	3.2	114
48	H_2/H_∞ state feedback control for discrete singular systems. IEEE Transactions on Automatic Control, 2000, 45, 1405-1409.	3.6	125
49	Comments on "Bounded real criteria for linear time-delay systems". IEEE Transactions on Automatic Control, 2000, 45, 1409-1411.	3.6	1
50	Robust H_2/H_∞ filtering of stationary continuous-time linear systems with stochastic uncertainties. IEEE Transactions on Automatic Control, 2001, 46, 1788-1793.	3.6	141
51	H_∞ optimal envelope-constrained FIR filter design with uncertain input. Signal Processing, 2001, 81, 1407-1415.	2.1	1
52	Mixed H_2/H_∞ deconvolution of uncertain periodic FIR channels. Signal Processing, 2001, 81, 2089-2103.	2.1	21
53	Existence of unmixed solutions of the discrete-time algebraic Riccati equation and a nonstrictly bounded real lemma. Systems and Control Letters, 2001, 43, 141-147.	1.3	6
54	H_∞ control and robust stabilization of two-dimensional systems in Roesser models. Automatica, 2001, 37, 205-211.	3.0	194

#	ARTICLE	IF	CITATIONS
55	New results on discrete-time bounded real lemma for singular systems: strict matrix inequality conditions. , 0, , .		4
56	DESIGN OF REDUCED ORDER H_{∞} FILTERS FOR DISCRETE TIME SYSTEMS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 107-112.	0.4	1
57	Robust H_{∞} estimation of stationary discrete-time linear processes with stochastic uncertainties. Systems and Control Letters, 2002, 45, 257-269.	1.3	58
58	On an explicit expression to compute H_{∞} norm of symmetric systems. , 0, , .		0
59	Discrete-time H_{∞} fusion filter in data fusion system. , 0, , .		1
60	A LMI approach to robust H_{∞} filtering for discrete-time systems. , 0, , .		5
61	Sufficient LMI conditions for the H_{∞} output feedback stabilization of linear discrete-time systems. , 2004, , .		0
62	Robust H_{∞} control for discrete-time polytopic uncertain systems with linear fractional vertices. Journal of Control Theory and Applications, 2004, 2, 75-81.	0.8	10
63	Algebraic Riccati equation and J-spectral factorization for estimation. Systems and Control Letters, 2004, 51, 383-393.	1.3	18
64	Robust H_{∞} control for discrete-time fuzzy systems via basis-dependent Lyapunov functions. Information Sciences, 2005, 174, 197-217.	4.0	162
65	Robust FIR equalization of uncertain communication channels " An LMI approach. Electrical Engineering, 2005, 87, 245-251.	1.2	2
66	Several dissipativity and passivity implications in the linear discrete-time setting. Mathematical Problems in Engineering, 2005, 2005, 599-616.	0.6	27
67	LMI-based H_{∞} fuzzy equalizer design for discrete-time nonlinear channels. , 0, , .		0
68	Robust H_2 and H_{∞} control of discrete-time systems with polytopic uncertainties via dynamic output feedback. International Journal of Control, 2005, 78, 1285-1294.	1.2	27
69	Robust H_2 and H_{∞} control of discrete-time systems with polytopic uncertainties via dynamic output feedback. , 0, , .		3
70	Robust H_{∞} Decomposed-Composed (D-C) State Fusion Estimation for Multisensor System with Uncertain Correlated Measurement Covariance. , 0, , .		3
71	Application of Multisensor State Fusion in Estimation of Paper Basis Weight. , 0, , .		0
72	The sector bound approach to quantized feedback control. IEEE Transactions on Automatic Control, 2005, 50, 1698-1711.	3.6	1,326

#	ARTICLE	IF	CITATIONS
73	FIR equalization for nonlinear communication channels. , 2006, , .		0
74	Sufficient LMI Conditions for H_{∞} Output Feedback Stabilization of Linear Discrete-Time Systems. IEEE Transactions on Automatic Control, 2006, 51, 675-680.	3.6	88
75	Algebraic Riccati Equation and J-Spectral Factorization for Hinf Smoothing and Deconvolution. SIAM Journal on Control and Optimization, 2006, 45, 123-145.	1.1	20
76	Robust H_{∞} control for fuzzy systems with Frobenius norm-bounded uncertainties. IEEE Transactions on Fuzzy Systems, 2006, 14, 1-15.	6.5	35
77	Optimal pulse control of dynamic systems in the shock phase. Automation and Remote Control, 2006, 67, 65-77.	0.4	4
78	Anisotropy-based robust performance analysis of finite horizon linear discrete time varying systems. Automation and Remote Control, 2006, 67, 1265-1282.	0.4	77
79	Kalman-Popov-Yakubovich lemma and the S-procedure: A historical essay. Automation and Remote Control, 2006, 67, 1768-1810.	0.4	73
80	On the bounded-real and positive-real conditions for affine nonlinear state-delayed systems and applications to stability. Automatica, 2006, 42, 357-362.	3.0	4
81	FIR fuzzy equalizer design for nonlinear channels LMI-based fuzzy approach. Electrical Engineering, 2006, 88, 527-534.	1.2	0
82	An FIR Equalizer Design for Nonlinear Channels Using Hybrid GA and LMI. Circuits, Systems, and Signal Processing, 2006, 25, 685-699.	1.2	1
83	Discrete Time Mixed LQR/ H_{∞} Control Problem : Static Output Feedback Case. , 2006, , .		3
84	Algebraic Riccati equation and J-spectral factorization for H_{∞} smoothing and deconvolution. , 2006, , .		0
85	Observer based H_{∞} Control Problem for Linear Discrete Time Systems with Multiple Left Sub-Static-Output and Weighted Right Sub-Static-Output Feedback. , 2006, , .		0
86	Parameterization of All Stabilizing H_{∞} Static State-Feedback Gains: Application to Output-Feedback Design. , 2006, , .		6
87	Non-Fragile Mixed LQR/ H_{∞} Control Problem for Linear Discrete-time Systems with Controller Uncertainty. , 2006, , .		3
88	Discrete-time H_{∞} Gaussian control. , 2007, , .		0
89	H_{∞} Finite Memory Controls for Linear Discrete-Time State-Space Models. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 2007, 54, 97-101.	2.3	47
90	Robust Decentralized H_{∞} Control for Discrete-Time Systems with Time-Delay Using Homotopy Method. , 2007, , .		0

#	ARTICLE	IF	CITATIONS
91	Robust state feedback H^∞ control for uncertain linear discrete singular systems. IET Control Theory and Applications, 2007, 1, 195-200.	1.2	53
92	Stochastic H_2/H_∞ control for discrete-time systems with multiplicative noise in state and control input: Infinite horizon case. , 2007, , .		0
93	Stability of Dissipative Systems. Communications and Control Engineering, 2007, , 257-313.	1.0	0
94	Parameterization of all stabilizing H_2/H_∞ static state-feedback gains: Application to output-feedback design. Automatica, 2007, 43, 1597-1604.	3.0	63
95	Stability analysis on uncertain stochastic impulsive systems with time-delay. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 6053-6059.	0.9	8
96	Robust output-feedback model predictive control for systems with unstructured uncertainty. Automatica, 2008, 44, 1933-1943.	3.0	93
97	Infinite horizon stochastic H_2/H_∞ control for discrete-time systems with state and disturbance dependent noise. Automatica, 2008, 44, 2306-2316.	3.0	90
98	Optimal filtering in networked control systems with multiple packet dropouts. Systems and Control Letters, 2008, 57, 696-702.	1.3	174
99	New bounded real lemma for discrete-time singular systems. Automatica, 2008, 44, 886-890.	3.0	137
100	Robust H_∞ control of discrete-time singular T-S fuzzy systems. , 2008, , .		1
101	Stabilization of discrete-time quantized linear systems: An H_∞ approach. , 2008, , .		7
102	Characterization of all static state feedback mixed LQR/ H_2 controllers for linear continuous-time systems. , 2008, , .		2
103	H_2/H_∞ Control for fast sample singularly perturbed systems. , 2008, , .		0
104	Decentralized H_∞ fusion filter design in multi-sensor fusion system. , 2008, , .		3
105	Centralized H^∞ Fusion Filter Design in Multi-Sensor Data Fusion System. , 2008, , .		2
106	State Estimation Using Quantized Measurements. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 12492-12497.	0.4	8
107	Discrete-Time H^∞ Gaussian Filter. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 13533-13538.	0.4	5
108	Mixed H_2/H_∞ power control with adaptive QoS for wireless communication networks. , 2009, , .		2

#	ARTICLE	IF	CITATIONS
109	Inverse minimax optimality of model predictive control policies. Systems and Control Letters, 2009, 58, 31-38.	1.3	5
110	State estimation for linear discrete-time systems using quantized measurements. Automatica, 2009, 45, 2937-2945.	3.0	157
111	On Hankel Singular Values and Reflected Zeros of Linear Dynamical Systems. IEEE Transactions on Automatic Control, 2009, 54, 641-646.	3.6	1
112	H ∞ finite memory controls for linear discrete-time systems. , 2010, , .		0
113	Discrete time multi-objective H_2/H_∞ control. , 2010, , .		1
115	Discrete Time Mixed LQR/ H_∞ Control Problems. , 0, , .		2
117	Strict Anisotropic Norm Bounded Real Lemma in Terms of Inequalities. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 2332-2337.	0.4	11
118	The positive real lemma and construction of all realizations of generalized positive rational functions. Systems and Control Letters, 2011, 60, 985-993.	1.3	15
119	BIBO stability and stabilization of networked control systems with short time-varying delays. International Journal of Robust and Nonlinear Control, 2011, 21, 295-308.	2.1	33
120	Robust Filtering of 2D Roesser Discrete Systems: A Polynomial Approach. Mathematical Problems in Engineering, 2012, 2012, 1-15.	0.6	14
121	Dissipativity Analysis of Linear State/Input Delay Systems. Abstract and Applied Analysis, 2012, 2012, 1-14.	0.3	2
122	Anti-disturbance cooperative control for configuration and attitude of satellite formation. , 2012, , .		0
123	H_2/H_∞ -induced norm of discrete-time switched linear systems: Solutions and algorithms. , 2012, , .		0
124	Composite disturbance attenuation based saturated control for maintenance of low Earth orbit (LEO) formations. Journal of Zhejiang University: Science C, 2012, 13, 328-338.	0.7	1
125	On finite-horizon H_2 -induced norms of discrete-time switched linear systems. Automatica, 2013, 49, 2517-2524.	3.0	7
126	Robust H_∞ Control for a Class of 2-D Nonlinear Discrete Stochastic Systems. Circuits, Systems, and Signal Processing, 2013, 32, 2297-2316.	1.2	13
127	H_2 model reduction for port-controlled Hamiltonian systems. Applied Mathematical Modelling, 2013, 37, 2727-2736.	2.2	6
128	Transmission Power Control for Opportunistic QoS Provision in Wireless Networks. IEEE Transactions on Control Systems Technology, 2013, 21, 315-331.	3.2	18

#	ARTICLE	IF	CITATIONS
129	Minimum System Sensitivity Study of Linear Discrete Time Systems for Fault Detection. Mathematical Problems in Engineering, 2013, 2013, 1-13.	0.6	7
130	Distributed H_∞ tracking control for discrete-time multi-agent systems with a high-dimensional leader. , 2013, , .		2
131	Towards a robust multi-level control approach for baggage handling systems. , 2013, , .		1
132	Output feedback stabilization for networked control systems with quantized fading actuating channels. , 2013, , .		12
133	Bounded real lemma for positive discrete systems. IET Control Theory and Applications, 2013, 7, 502-507.	1.2	10
134	Robust model predictive control: reflections and opportunities. Journal of Control and Decision, 2014, 1, 115-148.	0.7	46
135	H_∞ performance analysis of singular systems via delta operator method. , 2014, , .		1
136	Distributed H_∞ fusion filtering with communication bandwidth constraints. Signal Processing, 2014, 96, 284-289.	2.1	49
137	Switching-based adaptive disturbance attenuation with guaranteed robust stability. , 2015, , .		1
138	Sufficient LMI conditions for reduced order multi-objective H_∞ control. Distributed H_∞ fusion filtering with communication bandwidth constraints. Signal Processing, 2014, 96, 284-289.	1.6	26
139	Distributed H_∞ consensus filtering for piecewise discrete-time linear systems. Journal of the Franklin Institute, 2015, 352, 2029-2046.	1.9	18
140	H_∞ digital redesign for LTI systems. International Journal of Control, Automation and Systems, 2015, 13, 603-610.	1.6	8
141	Model reduction of a class of discrete-time nonlinear systems. Applied Mathematics and Computation, 2015, 250, 78-93.	1.4	9
142	A Short Note on Constrained Linear Control Systems With Multiplicative Ellipsoidal Uncertainty. IEEE Transactions on Automatic Control, 2016, 61, 4106-4111.	3.6	9
143	Distributed Fusion Estimation for Sensor Networks with Communication Constraints. , 2016, , .		4
144	Observer-Based Stabilizing Controllers for Discrete-Time Systems with Quantized Signal and Multiplicative Random Noise. SIAM Journal on Control and Optimization, 2016, 54, 251-265.	1.1	21
145	Joint State and Parameter Estimation for Discrete-Time Takagi-Sugeno Model. Journal of Physics: Conference Series, 2017, 783, 012016.	0.3	1
146	Improved results on BIBO stability and stabilization of networked control systems with short time-varying delays. Journal of the Franklin Institute, 2017, 354, 7699-7716.	1.9	12

#	ARTICLE	IF	CITATIONS
147	Bounded real lemma for discrete linear time-varying descriptor systems. , 2017, , .		2
148	An adaptive observer design approach for a class of discrete-time nonlinear systems. International Journal of Applied Mathematics and Computer Science, 2018, 28, 55-67.	1.5	5
149	SMT-Based Observer Design for Cyber-Physical Systems under Sensor Attacks. ACM Transactions on Cyber-Physical Systems, 2018, 2, 1-27.	1.9	50
150	Robust stabilization subject to structured uncertainties and mean power constraint. Automatica, 2018, 92, 1-8.	3.0	7
151	Discrete-Time State-Feedback Switching LPV Control with Separate Lyapunov Functions for Stability and Local Performance. , 2018, , .		5
152	BIBO stability and stabilization of networked control systems with short time-varying delays via non-fragile control. , 2019, , .		1
153	Fusion-Based FDI Attack Detection in Cyber-Physical Systems. IEEE Transactions on Circuits and Systems II: Express Briefs, 2020, 67, 1487-1491.	2.2	29
154	Stability of Dissipative Systems. Communications and Control Engineering, 2020, , 357-427.	1.0	0
155	Structure-triggered asymptotical synchronization for nonidentical generalized stochastic systems with Markovian jumping parameter based on sliding mode control. International Journal of Robust and Nonlinear Control, 2020, 30, 6414-6432.	2.1	1
156	Optimal guaranteed cost control of discrete-time linear systems subject to structured uncertainties. International Journal of Control, 2021, 94, 1132-1142.	1.2	1
157	In Between the LQG/H_2 - and H_∞ -Control Theories. Automation and Remote Control, 2021, 82, 565-618.	0.4	5
158	Unknown Input Observer Based Approach for Distributed Tube-Based Model Predictive Control of Heterogeneous Vehicle Platoons. IEEE Transactions on Vehicular Technology, 2021, 70, 2930-2944.	3.9	62
159	Norm bounds for Volterra integral operators and time-varying linear systems with finite horizon. , 1998, , 275-290.		1
160	New H [∞] FIR Smoother for Linear Discrete-Time State-Space Models. IEICE Transactions on Communications, 2008, E91-B, 896-899.	0.4	9
161	Alternative LMIs characterization of $\hat{a}_{/sub 2/}$ and central $\hat{a}_{/sub \hat{z}/}$ discrete-time controllers. , 0, , .		4
163	An efficient quantization algorithm for solving average-consensus problems. , 2009, , .		4
164	Existence Conditions of Stabilizing and Anti-Stabilizing Solutions of Discrete-Time Algebraic Matrix Riccati Equations. Transactions of the Society of Instrument and Control Engineers, 1999, 35, 886-895.	0.1	2
165	Stochastic Mixed LQR/H [∞] Control for Linear Discrete-Time Systems. , 0, , .		0

#	ARTICLE	IF	CITATIONS
166	Performance bounds for constrained linear min-max control. , 2013, , .		0
167	A Unified Synthesis Method of Controllers that Satisfy LMI-Conditions. Transactions of the Society of Instrument and Control Engineers, 1995, 31, 1586-1594.	0.1	3
168	Discrete Nonstationary Bounded Real Lemma in Indefinite Metrics, the Strict Contractive Case. , 1995, , 49-78.		4
169	Decentralized Quadratic Stabilization of Interconnected Discrete-Time Systems. Transactions of the Society of Instrument and Control Engineers, 1997, 33, 28-34.	0.1	0
170	Robust Repetitive Control for Plants with Structural Uncertainties. Transactions of the Society of Instrument and Control Engineers, 1998, 34, 798-806.	0.1	0
171	Stabilization of Linear Systems via Infinite-Level Logarithmic Quantization. Communications and Control Engineering, 2015, , 123-148.	1.0	0
172	H $\hat{\infty}$ Fusion Estimation for WSNs with Quantization. , 2016, , 135-146.		0
174	Observer design and a separation principle for linear discrete-time descriptor systems. , 0, , .		0
175	A Novel Bounded Real Lemma for Discrete-Time Markov Jump Linear Singular Systems. , 2022, 6, 2281-2286.		2
177	Robust PI Observer Design of the Welding Process Model. , 2021, , .		0
178	Classical Control System Analysis over Lossy Networks: An Easy-to-Use Nyquist Plot Approach. IEEE Transactions on Automatic Control, 2022, , 1-8.	3.6	0
179	From Data to Reduced-Order Models via Generalized Balanced Truncation. IEEE Transactions on Automatic Control, 2023, 68, 6160-6175.	3.6	6