

# 2000 Index

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This index covers all technical items - papers, correspondence, reviews, etc. that appeared in this periodical during 2000, and items from previous years that were commented upon or corrected in 2000. Departments and other items may be also covered if they have been judged to have archival value.

The Author Index contains the primary entry for each item, listed under the first author's name. The primary entry includes the coauthors' names, the title of the paper or other item, and its location, specified by the publication abbreviation, year, month, and inclusive pagination. The Subject Index contains entries describing the item under all appropriate subject headings, plus the first author's name, the publication abbreviation, month, and year, and inclusive pages. Subject cross-references are included to assist in finding items of interest. Note that the item title is found only under the primary entry in the Author Index.

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param. estim. of ARX models, optimal adaptive control. *Jankumas, A., T-AC May 00 964-968*

**Autoregressive processes; cf.** Autoregressive moving average processes

**Awards**

1999 George S. Axelby Outstanding Paper Award given to T.T. Georgiou and M.C. Smith. *T-AC Feb 00 179*

**B**

**Backpropagation**

control syst. virtual ref. direct design, data based. *Guardabassi, G.O., +, T-AC May 00 954-959*

**Bang-bang control**

single-input bilinear systs., stabil. anal. and bang-bang sliding control. *Yon-Ping Chen, +, T-AC Nov 00 2150-2154*

**Batch processing (industrial)**

batch proc. constrained model-based predictive control. *Lee, K.S., +, T-AC Oct 00 1928-1932*

**Bayes methods**

Bernoulli bandits with unknown params. *Bhulai, S., +, T-AC Nov 00 2135-2140*

multiple targets tracking, probabilistic data assoc. avoiding track coalescence. *Blom, H.A.P., +, T-AC Feb 00 247-259*

**Bifurcation**

IM, indirect field-oriented control, robustness margins. *Bazanella, A.S., +, T-AC Jun 00 1226-1231*

periodically forced chaotic pendulum syst. impulsive control. *Zhi-Hong Guan, +, T-AC Sep 00 1724-1727*

**Bilinear systems**

bilinear multivariable adaptive decoupling control design. *Xi Sun, +, T-AC Apr 00 714-719*

discrete bilin. systs., sing. perturbed, robustness. *Juing-Shian Chiou, +, T-AC Jun 00 1187-1191*

open-loop unstable bilinear systs., control design, exponential stabilization. *Min-Shin Chen, +, T-AC May 00 989-992*

single-input bilinear systs., stabil. anal. and bang-bang sliding control. *Yon-Ping Chen, +, T-AC Nov 00 2150-2154*

**Book reviews**

Chain-Scattering Approach to  $H_\infty$ -control (Kimura, H.; 1997). *Colaneri, P., T-AC Jul 00 1412-1413*

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**Boundary-value problems**

2-machine flowshops, finite buffer, optimal feedback control. *Ngo Tai Fong, +, T-AC Jun 00 1198-1203*

**Braking**

train operation optimal control problem. *Khmelnitsky, E., T-AC Jul 00 1257-1266*

**C**

**Calculus; cf.** Integration

**Cascade systems**

robust adaptive control of class of nonlin. systs. with unknown backlash-like hysteresis. *Chun-Yi Su, +, T-AC Dec 00 2427-2432*

smoothers, optimal, min. realization and dyn. props. *Ferrante, A., +, T-AC Nov 00 2028-2046*

**Chaos**

periodically forced chaotic pendulum syst. impulsive control. *Zhi-Hong Guan, +, T-AC Sep 00 1724-1727*

**Chebyshev approximation**

conditional central algs. for worst case set-membership ident. and filtering. *Garulli, A., +, T-AC Jan 00 14-23*

**Closed loop systems**

adaptive stochastic one-step-ahead optimal control. *Kueiming Lo, +, T-AC May 00 980-983*

boundary control of KdV-Burgers eqn., stabil. *Balogh, A., +, T-AC Sep 00 1739-1745*

closed loop systs., worst case peak-to-peak gain minimization. *Elia, N., +, T-AC Apr 00 687-701*

constrained nonlin. syst. contractive model predictive control. *de Oliveira Kothare, S.L., +, T-AC Jun 00 1053-1071*

continuous-time delay systs. with saturating controls via lin. matrix inequality. *Tarbouriech, S., +, T-AC Jan 00 105-111*

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delays, adaptive stabilizing state feedback control. *Wu, H., T-AC Sep 00 1697-1701*

(D,G)-scaling, necessary and sufficient condition. *Meinsma, G., +, T-AC Sep 00 1755-1759*

digital controllers with finite word length, comment. *Whidborne, J.F., +, T-AC Feb 00 344*

discrete bilin. systs., sing. perturbed, robustness. *Juing-Shian Chiou, +, T-AC Jun 00 1187-1191*

- discrete lin. periodic syst.  $H_\infty$  tracking control. *Ki Baek Kim*, +, *T-AC Apr 00 747-752*
- discrete sing. systs.,  $H_\infty$  state feedback control. *Shengyuan Xu*, +, *T-AC Jul 00 1405-1409*
- discrete time general multiple LQ control problem, successive method. *Li-Zhi Liao*, +, *T-AC Jul 00 1380-1385*
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- ident. closed-loop/projection method. *Forssell, U.*, +, *T-AC Nov 00 2101-2106*
- infinite-dimens. uncertain syst. sliding mode feedback control. *Orlov, Y.V.*, *T-AC May 00 834-843*
- interconnected stochastic nonlin. syst., decentralized stabilization. *Shoulie Xie*, +, *T-AC Jan 00 132-137*
- jump lin. Markov systs., output feedback control. *De Farias, D.P.*, +, *T-AC May 00 944-949*
- learning approach to tracking in mech. systs. with friction. *Seong-Il Cho*, +, *T-AC Jan 00 111-116*
- lin. MIMO dyn. syst. pole assignment/stabilization. *Ghosh, B.K.*, +, *T-AC Apr 00 734-738*
- lin. output feedback controller design with joint selection of sensors and actuators. *de Oliveira, M.C.*, +, *T-AC Dec 00 2412-2419*
- lin. periodic discrete-time systs., robust min. norm pole assignment. *Varga, A.*, *T-AC May 00 1017-1022*
- lin. time-varying syst. adaptive/nonadaptive control. *Limanond, S.*, +, *T-AC Jul 00 1290-1300*
- lin. time-varying systs., closed-form control laws. *Ping Lu*, *T-AC Mar 00 537-542*
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- nonlin. syst. adaptive actuator compensation feedback control. *Ma, X.*, +, *T-AC Sep 00 1705-1710*
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- robust decentralized impulse control of uncertain systs. *Dianhui Wang*, +, *T-AC Apr 00 795-800*
- rot.-translational actuator benchmark nonlin. syst., global output-feedback tracking. *Jiang, Z.-P.*, +, *T-AC May 00 1023-1027*
- sampled-data syst. sliding mode control, boundary layer. *Wu-Chung Su*, +, *T-AC Mar 00 482-485*
- sing. lin. time-varying systs., I/O block decoupling. *Xiaoping Liu*, +, *T-AC Feb 00 312-318*
- sing. uncertain syst. robust impulse control. *Dianhui Wang*, +, *T-AC Mar 00 500-505*
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- two-body syst., two-step adaptive controller. *Tao, G.*, *T-AC May 00 1011-1016*
- unstable lin. syst. with saturating actuators, stabilization. *Saberi, A.*, +, *T-AC Jun 00 1042-1052*
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- Code division multiple access**
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- Combinatorial mathematics; cf. Graph theory**
- Compensation**
- double integrator settling time control, trap-door absorber. *Buppo, R.T.*, +, *T-AC Apr 00 776-780*
- finite-dimens. time-invariant feedback, optimal tracking. *Jie Chen*, +, *T-AC Feb 00 326-331*
- integrated friction model struct., presliding behavior, accurate friction compensation. *Swevers, J.*, +, *T-AC Apr 00 675-686*
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- manipulators, global adaptive feedback tracking control. *Zhang, F.*, +, *T-AC Jun 00 1203-1208*
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- Compensation; cf. Error compensation**
- Compressors**
- stabilizing minimum phase nonlin. systs. using dynamic output feedback. *Pengnian Chen*, +, *T-AC Dec 00 2331-2335*
- Computability**
- hybrid systs., stabil. problems, algorithmic unsolvability. *oker, O.*, *T-AC Jan 00 165-168*
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- computationally efficient Lyapunov-based scheduling procedure for control of nonlin. systs. with stabil. guarantees. *McConley, M.W.*, +, *T-AC Jan 00 33-49*
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- VSS multiple-model estim., model-set adaptation. *Rong Li, X.*, *T-AC Nov 00 2047-2060*
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- closed analytic form for disturbance switch curve of some second-order lin. systs. *Luo, J.C.*, +, *T-AC Jan 00 102-105*
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- Computation theory; cf. Automata theory; Formal logic**
- Computer applications; cf. Computerized control; Mathematics computing**
- Computerized control**
- learning approach to tracking in mech. systs. with friction. *Seong-Il Cho*, +, *T-AC Jan 00 111-116*
- Computerized control; cf. Intelligent control**
- Computer vision**
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- finite horizon  $H^\infty$  state-feedback control of CT systs. with state delays. *Fridman, E.*, +, *T-AC Dec 00 2406-2411*
- Continuous systems synthesis**
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- Control equipment; cf.** Actuators; Controllers; Neurocontrollers
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- neural-net-based direct adaptive control for class of nonlin. plants. *Ahmed, M.S.*, *T-AC Jan 00* 119-124
- Controllers; cf.** Servomechanisms
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- Control of specific variables; cf.** Mechanical variables control
- Control system analysis**
- BIBO unstable plant with no poles. *MacCluer, C.R.*, *T-AC Aug 00* 1575-1576
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- Control systems; cf.** Delay systems; Model reference adaptive control systems; Multivariable control systems; Nonlinear control systems; Observers; Reduced order systems; Singularly perturbed systems
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- adaptive backstepping control design for systs. with unknown HF gain. *Ying Zhang*, +, *T-AC Dec 00* 2350-2354
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- $l_1$  optimal robust controller for SISO plant under coprime factor perturbations. *Sokolov, V.F.*, *T-AC Dec 00* 2339-2345
- $l_1$ -suboptimal pole placement design. *Halpern, M.E.*, *T-AC Oct 00* 1881-1885
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semiglobal output feedback control of uncertain nonlin. systs. with unknown HF gain sign. *Ye Xudong*, *T-AC Dec 00* 2402-2405  
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**Identification; cf.** Parameter estimation; State estimation

**Image motion analysis; cf.** Motion estimation

**Image processing; cf.** Computer vision; Image sequences

**Image sequences**

dyn. vision, implicitly defined outputs, Luenberger-type observers. *Matveev, A.*, + , *T-AC Jan 00* 168-173  
planar motion estim., Riccati dyn. ident. *Ghosh, B.K.*, + , *T-AC Jul 00* 1267-1278

**Induction motors**

indirect field-oriented control, robustness margins. *Bazanella, A.S.*, + , *T-AC Jun 00* 1226-1231

**Industrial control; cf.** Process control; Production control

**Industrial robots**

Petri net supervisory control, robotic assembly cell. *Moody, J.O.*, + , *T-AC Mar 00* 462-476

**Inference mechanisms; cf.** Nonmonotonic reasoning

**Information theory; cf.** Entropy; Error statistics; Filtering theory; Prediction theory

**Initial value problems**

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**Input-output stability**

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**Instruments; cf.** Sensors

**Integer programming**

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**Integral equations**

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**Integration**

BIBO stabil. integral for second-order systs. *Lee, E.B.*, + , *T-AC Feb 00* 311-312

**Intelligent control**

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**Intelligent control; cf.** Fuzzy control

**Interconnected systems**

interconnected stochastic nonlin. syst., decentralized stabilization. *Shoulie Xie*, + , *T-AC Jan 00* 132-137

**Interconnected systems; cf.** Cascade systems

**Interference suppression**

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**Interpolation**

control theoretic smoothing splines. *Shan Sun*, + , *T-AC Dec 00* 2271-2279  
rational suboptimal continuous-time controller design. *Halpern, M.E.*, *T-AC Sep 00* 1731-1734

**Inverse problems; cf.** Matrix inversion

**Iterative methods**

batch proc. constrained model-based predictive control. *Lee, K.S.*, + , *T-AC Oct 00* 1928-1932

book review; Random Iterative Models (Duflo, M.; Wilson, S.S., transl.; 1997). *Yin, C.G.*, *T-AC May 00* 1037-1039

cone-invariant lin. matrix inequalities. *Parrilo, P.A.*, + , *T-AC Aug 00* 1558-1563

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FMS seq.-depend. setup scheduling. *Khmel'nitsky, E.*, + , *T-AC Apr 00* 638-652

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MISO syst. robust control interactive param. space design. *Besson, V.*, + , *T-AC Oct 00* 1917-1924

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**Iterative methods; cf.** Gradient methods; Newton method; Newton-Raphson method

## J

**Jacobian matrices**

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## K

**Kalman filters**

discrete-time lin. stochastic systs., online param. estimator, quick convergence, 3-OM algm. *Wiberg, D.M.*, + , *T-AC Oct 00* 1854-1863

EKF freq. tracking, parametrization. *Bittanti, S.*, + , *T-AC Sep 00* 1718-1724

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**Languages; cf.** Formal languages

**Large-scale systems**

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**Large-scale systems; cf.** Interconnected systems

**Learning (artificial intelligence)**

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**Learning (artificial intelligence); cf.** Backpropagation

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**Least squares approximations**

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- extremum seeking for limit cycle minimization. *Wang, H.-H.*, +, *T-AC Dec 00* 2432-2437
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- Linear algebra; cf. Eigenvalues and eigenfunctions; Matrix algebra; Vectors**
- Linearization techniques**
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- Linear quadratic control**
- approx. adaptive nonlin. control, transient perform. *French, M.*, +, *T-AC Feb 00* 353-358
- book review: Optimization of Linear Control Systems: Analytical Methods and Computational Algorithms. *Ozbay, H.*, *T-AC Oct 00* 1997-1998
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- Linear quadratic Gaussian control**
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- Logic programming**  
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- Thermodynamic properties; cf.** Entropy
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