

References

An authority is a person who can tell you more about something than you really care to know.

We list below the references in the (case insensitive) alphabetical order of their abbreviations. As the main rule, the abbreviations consist of the three first letters of the author's last name (one letter of each if there are multiple authors), but short names appearing only once or twice are written in whole. We add two last digits of the publication year (and a letter) when ambiguity requires us to do so. Olof Staffans and George Weiss are referred by “S” or “W”, respectively.

When we write “[KFA, p. 7]”, we refer to page 7 of reference “[KFA]” below, etc. The references [IZ00], [Jacob01], [JZ00], [Mal97], [Mik97a], [Mik97b], [Mik98], [S97a], [Sbook], [SW01a] and [SW01b] (i.e., those having nothing in italics) have not yet been through a referee process (as far as we know). Whenever we refer a proof to any of these, we sketch the proof or give additional alternative references.

- [AAK] A. Adamjan, Damir Z. Arov and Mark G. Krein Analytic properties of Schmidt pairs for a Hankel operator and the generalized Schur-Takagi problem. *Math. USSR Sbornik*, 86:34–75, 1971.
- [Adams] Robert A. Adams. *Sobolev Spaces*. Academic Press, New York-London, 1975.
- [AM79] Brian D. O. Anderson and John B. Moore. *Optimal Filtering*. Prentice Hall, Englewood Cliffs, NJ, 1979.
- [AM90] Brian D. O. Anderson and John B. Moore. *Optimal Control. Linear Quadratic Methods*. Prentice Hall, Englewood Cliffs, NJ, 1990.
- [AN] Damir Z. Arov and Michael A. Nudelman. Passive linear stationary dynamical scattering systems with continuous time. *Integr. Equ. Oper. Theory*, 24:1–45, 1996.
- [Anderson] Mats Andersson. The Corona Theorem for Matrices. *Mathematische Zeitschrift*, 201:121–130, 1989.
- [Aupetit] Bernard Aupetit. *A Primer on Spectral Theory*. Universitext. Springer-Verlag, New York, 1991.
- [Balakrishnan] A. V. Balakrishnan. Strong stabilizability and the steady state Riccati equation. *Appl. Math. Optim.*, 7:335–345, 1981.
- [Basit] Bolis Basit. Some Problems Concerning Different Types of Vector-Valued Almost Periodic Functions. *Dissertationes Math.*, 338, 26 pp., 1995.
- [BH88] Joseph A. Ball and J. William Helton. Shift invariant subspaces, passivity, reproducing kernels and H^∞ -optimization. In *Operator Theory, Advances and Applications*, I. Gohberg, J. W. Helton and L. Rodman, eds, Birkhäuser Verlag, Berlin, 1988, 265–310.
- [BH92] Joseph A. Ball and J. William Helton. Inner-outer factorization of nonlinear operators. *J. Functional Analysis*, 104:363–413, 1992.

- [BKRS] Joseph A. Ball, Yuri Karlovich, Leiba Rodman and Ilya M. Spitkovsky. Sarason interpolation and Toeplitz corona theorem for almost periodic matrix functions. *Integr. Equ. Oper. Theory*, 32:243–281, 1998.
- [BKS] A. Böttcher, Yuri I. Karlovich and Ilya M. Spitkovsky. *Convolution operators and factorization of almost periodic matrix functions*. To appear, 2001.
- [BL] Jöran Bergh and Jörgen Löfström. *Interpolation Spaces. An Introduction*. Springer, 1976.
- [BLT] Viorel Barbu, Irena Lasiecka and Roberto Triggiani. Extended algebraic Riccati equations in the abstract Hyperbolic case. *Nonlinear Anal.*, 40:105–129, 2000.
- [BP] Francesca Bucci and Luciano Pandolfi. The value function of the singular quadratic regulator problem with distributed control action. *SIAM J. Control Optim.*, 36:115–136, 1998.
- [BR] R. G. Babadzhanyan and V. S. Rabinovich. Factorization of almost periodic operator functions. (Russian) *Differential and integral equations and complex analysis* (Russian), Kalmytsk. Gos. Univ., Elista, 13–22, 1986.
- [Bredon] Glen E. Bredon. *Topology and Geometry*, Springer, New York, 1993.
- [Carleson] Lennart Carleson. Interpolations by bounded analytic functions and the corona problem. *Ann. Math.*, 76:547–559, 1962.
- [CD78] Frank M. Callier and Charles A. Desoer. An algebra for transfer functions for distributed linear time-invariant systems. *IEEE Trans. Circuits and Systems*, CAS-25:651–662, 1978.
- [CD80] Frank M. Callier and Charles A. Desoer. Stabilization, tracking and disturbance rejection in multivariable convolution systems. *Ann. Soc. Sci. Bruxelles Sér. I*, 94:7–51, 1980.
- [CD98] Frank M. Callier and Laurence Dumortier. Partially stabilizing LQ-optimal control for stabilizable semigroup systems. *Integr. equ. oper. theory*, 32:119–151, 1998.
- [CG81] Kevin F. Clancey and Israel C. Gohberg. *Factorizations of Matrix Functions and Singular Integral Operators*. Birkhäuser Verlag, Basel Boston Stuttgart, 1981.
- [CG97] Ruth F. Curtain and Michael Green. Analytic system problems and J -lossless factorization for infinite-dimensional linear systems. *Lin. Alg. Appl.*, 257:121–161, 1997.
- [CO98] Ruth F. Curtain and Job C. Oostveen. The Nehari problem for nonexponentially stable systems. *Integr. Equ. Oper. Theory*, 31:307–320, 1998.
- [CP78] Ruth F. Curtain and Anthony J. Pritchard. *Infinite Dimensional Linear Systems Theory*. Springer-Verlag, New York and Berlin, 1978.
- [CR] Ruth F. Curtain and Leiba Rodman. Comparison theorems for infinite-dimensional Riccati equations *Systems and Control letters* 15:153–159, 1990.

- [Curtain89] Ruth F. Curtain. Representations of infinite-dimensional systems. *Three Decades of Mathematical System Theory*, H. Nijmeijer and J. M. Schumacher, Eds., Springer-Verlag, Berlin, 101–128, 1989.
- [Curtain97] Ruth F. Curtain. The Salamon–Weiss class of well-posed infinite-dimensional linear systems: a survey. *IMA J. Math. Control & Information*, 14:207–223, 1997.
- [Curtain02] Ruth F. Curtain. Pseudo-coprime factorizations for regular linear systems. Manuscript, 2002.
- [CW89] Ruth F. Curtain and George Weiss. Well posedness of triplets of operators (in the sense of linear systems theory). *Control and Optimization of Distributed Parameter Systems*, F. Kappel and K. Kunish and W. Schapacher, Eds., Birkhäuser, Basel, 41–59, 1989.
- [CW99] Frank M. Callier and Joseph Winkin. The spectral factorization problem for multivariable distributed parameter systems. *Integr. equ. oper. theory*, 34:270–292, 1999.
- [CWW96] Ruth F. Curtain, George Weiss and Martin Weiss. Coprime factorization for regular linear systems *Automatica* 32: 1519–1531, 1996.
- [CWW01] Ruth F. Curtain, George Weiss and Martin Weiss. Stabilization of irrational transfer functions by controller with internal loop. To appear in *Systems, Approximation, Singular Integral Operators, and Related Topics, Proceedings of IWOTA 2000*, Alexander A. Borichev and Nikolai K. Nikolski (eds.), Birkhäuser, 2001.
- [CZ] Ruth F. Curtain and Hans Zwart. *An Introduction to Infinite-Dimensional Linear Systems Theory*. Springer, New York, 1995.
- [CZ94] Ruth F. Curtain and Hans Zwart. The Nehari problem for the Pritchard–Salamon class of infinite-dimensional linear systems: a direct approach. *Integr. Equ. Oper. Theory*, 18:130–153, 1994.
- [Datko] Richard Datko. Extending a theorem of A. M. Liapunov to Hilbert space. *J. Math. Anal. Appl.*, 32:610–616, 1970.
- [DGKF] John C. Doyle, Keith Glover, P. P. Khargonekar and Bruce A. Francis. State-space solutions to standard H_2 and H_∞ control problems. *IEEE Trans. Autom. Control*, 34:831–847, 1989.
- [Dinculeanu] N. Dinculeanu. *Integration on locally compact spaces*. Noordhoff, Leyden, 1974.
- [DLMS] C. A. Desoer, R. W. Liu, J. Murray and R. Saeks. Feedback system desing: the fractional representation approach to analysis and synthesis. *IEEE Trans. Autom. Control*, 25:399–412, 1980.
- [Dobrakov] Ivan Dobrakov. On integration in Banach spaces, I. *Czechoslovak Mathematical Journal*, 20:511–536, 1970.
- [DS] Allen Devinatz and Marvin Shinbrot. General Wiener-Hopf operators. *Trans. Am. Math. Soc.*, 145:467–494, 1969.
- [DU] J. Diestel and J. J. Uhl. *Vector Measures*. Amer. Math. Soc. Surveys, Vol. 15, Providence, RI, 1977.

- [Dumortier] Laurence Dumortier. *Partially stabilizing Linear-Quadratic optimal control for stabilizable semigroup systems*. Doctoral dissertation, ISBN 2-87037-266-3, <http://www.fundp.ac.be/~ldumorti/these.ps>, University of Notre-Dame de la Paix, Belgium, 1998.
- [Duren] Peter L. Duren. *The Theory of H^p Spaces*. Academic Press, New York, 1970.
- [DV] C. A. Desoer and M. Vidyasagar. *Feedback Systems: Input-Output Properties*. Academic Press, New York San Francisco London, 1975.
- [FF] Ciprian Foiaş and Arthur E. Frazho. *The Commutant Lifting Approach to Interpolation Problems*. OT44. Birkhäuser, 1990.
- [FLT] Franco Flandoli, Irena Lasiecka and Roberto Triggiani. Algebraic Riccati equations with non-smoothing observation arising in hyperbolic and Euler–Bernoulli boundary control problems. *Annali Mat. Pura Appl.*, 153:307–382, 1988.
- [Francis] Bruce A. Francis. *A Course in H_∞ Control Theory*. Springer, Berlin, 1987.
- [FS] Y. Fourès and I. E. Segal. Causality and Analyticity. *Trans. Amer. Math. Soc.*, 78:385–405, 1955.
- [Fuhrmann68] Paul A. Fuhrmann. On the Corona theorem and its application to spectral problems in Hilbert space. *Trans. Am. Math. Soc.*, 132:55–65, 1968.
- [Fuhrmann81] Paul A. Fuhrmann. *Linear Systems and Operators in Hilbert Space*. McGraw-Hill, New York, 1981.
- [Garnett] John B. Garnett. *Bounded Analytic Functions*. Academic Press, 1981.
- [GD88] Keith Glover, John C. Doyle. State-space formulae for all stabilizing controllers that satisfy an H_∞ -norm bound and relations to risk sensitivity. *Systems and Control Letters*, 11: 167–172, 1988.
- [GGLD] Michael Green, Keith Glover, David J. N. Limebeer, John C. Doyle. A J -spectral factorization approach to H_∞ control. *SIAM J. Control Optim.*, 18:1350–1371, 1990.
- [Gibson] J. S. Gibson. The Riccati integral equations for optimal control problems on Hilbert space. *SIAM J. Control Optim.*, 17:537–565, 1979.
- [GL] Michael Green and David J. N. Limebeer. *Linear Robust Control*, Prentice Hall, Englewood Cliffs, New Jersey, 1995.
- [GL72] Israel C. Gohberg and Yuri Laiterer. General theorems on the canonical factorization of operator functions w.r.t. a contour. (Russian) *Mat. Issled.*, 3:87–134, 1972.
- [GL73a] Israel C. Gohberg and Yuri Laiterer. The factorization of operator-functions relative to a contour. III. Factorization in algebras. (Russian) *Math. Nachr.* 55:33–61, 1973.
- [GL73b] Israel C. Gohberg and Yuri Laiterer. A criterion for factorization of operator-functions with respect to a contour. *Soviet Math. Dokl.*, 14:425–429, 1973.

- [GLS] Gustaf Gripenberg, Stig-Olof Londen and Olof J. Staffans. *Volterra Integral and Functional Equations*. Cambridge University Press, 1990.
- [Gohberg] Israel C. Gohberg (ed.). *Time-Variant Systems and Interpolation*. OT56, Birkhäuser, 1992.
- [Grabowski] Piotr Grabowski. On the spectral-Lyapunov approach to parametric optimization of distributed-parameter systems. *IMA J. Math. Control Inform.*, 7:317–338, 1990.
- [Green] Michael Green. H^∞ controller synthesis by J -lossless coprime factorization. *SIAM J. Control Optim.*, 30:522–547, 1992.
- [Gri] Gustaf Gripenberg. Stability of Volterra equations with measure kernels in Banach spaces. *J. Math. Anal. Appl.*, 178:156–164, 1993.
- [GRS] I. Gelfand, D. Raikov and G. Shilov. *Commutative Normed Rings*. Chelsea Publishing Company, New York, 1964.
- [GS] Tryphon T. Georgiou and Malcolm C. Smith. Graphs, Causality, and Stabilizability: Linear, shift-invariant systems on $L^2[0, \infty)$. *Math. Control Signals Systems*, 6:195–223, 1993.
- [Helton76a] J. William Helton. Systems with Infinite-Dimensional State Space: The Hilbert Space Approach. *Proc. IEEE*, 64:145–160, 1976.
- [Helton76b] J. William Helton. A spectral factorization approach to the distributed stable regular problem: the algebraic Riccati equation. *SIAM J. Contr. Opt.*, 14:639–661, 1976.
- [Huang] Falun Huang. Characteristic conditions for exponential stability of linear dynamical systems in Hilbert space. *Ann. Differential Equations*, 1:43–56, 1985.
- [HI] A. Halanay and Vlad Ionescu. *Time-varying discrete-time linear systems: input output operators*. OT68, Birkhäuser, 1994.
- [Higham] Nicholas J. Higham. *Handbook of Writing for the Mathematical Sciences*. SIAM, Philadelphia, 1993.
- [Hoffman] K. Hoffman. *Banach Spaces of Analytic Functions*. Dover, New York, 1988.
- [HP] Einar Hille and Ralph S. Phillips. *Functional Analysis and Semi-Groups*. AMS, Providence, revised edition, 1957.
- [IOW] Vlad Ionescu, Cristian Oară and Martin Weiss. *Generalized Riccati Theory and Robust Control. A Popov Function Approach*. Wiley, 1999.
- [IW] Vlad Ionescu and Martin Weiss Continuous and discrete-time Riccati theory: A Popov functions approach. *Lin. Alg. Appl.* 193:173–209, 1993.
- [IZ00] Orest V. Iftime and Hans J. Zwart. The standard H_∞ -suboptimal control problem for LTI infinite dimensional systems.
<http://www.math.utwente.nl/publications/2000/1532.pdf>, Memorandum 1532, Faculty of Mathematics, University of Twente, 2000.
- [IZ01] Orest V. Iftime and Hans J. Zwart. J -spectral factorization and equalizing vectors, *Systems and Control Letters*, 43:321–327, 2001.

- [Jacob98] Birgit Jacob. Optimal control of time-varying well-posed linear systems on a finite time horizon. In *Mathematical Theory of Networks and Systems, Proceedings of the MTNS98 symposium*, Padova, 483–486, 1998.
- [Jacob99] Birgit Jacob. Birgit Jacob, Linear Quadratic Optimal Control of Time-Varying Systems with Indefinite Costs on Hilbert Spaces. *Math. Control Signals Systems*, 12:196–218, 1999.
- [Jacob01] Birgit Jacob. Optimal Control of Time-Varying Pritchard–Salamon Systems. Manuscript, 1998.
- [JP] Birgit Jacob and Jonathan R. Partington. The Weiss conjecture on admissibility of observation operators for contraction semigroups. *Integr. Equ. Oper. Theory*, 40:231–243, 2001.
- [JZ99] Birgit Jacob and Hans Zwart. Equivalent conditions for stabilizability of infinite-dimensional systems with admissible control operators. *SIAM J. Control Optim.*, 37:1419–1455, 1999.
- [JZ00] Birgit Jacob and Hans Zwart. Disproof of two conjectures of George Weiss. Memorandum 1546, Faculty of Mathematical Sciences, University of Twente, The Netherlands, 2000.
- [KFA] Rudolf E. Kalman and Peter L. Falb and Michael A. Arbib", *Topics in Mathematical System Theory*. McGraw-Hill, New York, 1969.
- [Karlovich91] Yuri I. Karlovich. *Algebras of convolution type operators with discrete groups of shifts and oscillating coefficients*. (Russian) Doctoral dissertation, Mathematical Institute, Georgian Academy of Sciences, Tbilisi, 1991.
- [Karlovich93] Yuri I. Karlovich. On the Haseman Problem. *Demonstratio Math.*, 26:581–595, 1993.
- [Kelley] John L. Kelley. *General Topology*, D. Van Nostrand Company, Princeton, New Jersey, 1955.
- [Keu] Bert van Keulen. *H_∞ -Control for Distributed Parameter Systems: A State Space Approach*. Birkhäuser, 1993.
- [KK] Ryoji Kawatani and Hidenori Kimura. Synthesis of reduced-order H^∞ controllers based on conjugation. *Internat. J. Control.*, 50:525–541, 1989.
- [KMR] Marinus A. Kaashoek, Cornelius van der Mee and A. C. M. Ran. Weighting operator patterns of Pritchard–Salamon realizations. *Integr. Equ. Oper. Theory*, 27:48–70, 1997.
- [KOS] Alois Kufner, John Oldřich, Fučík Svatopluk. *Function Spaces*. Noordhoff, Leyden, 1977.
- [KS] Huibert Kwakernaak and Raphael Sivan. *Linear Optimal Control Systems*. Wiley-Interscience, 1972.
- [KW] V. Katsnelson and George Weiss. A counterexample in Hardy spaces with an application to systems theory. *J. Anal. Appl.*, 14:705–730, 1995.
- [Lin] V. Ya. Lin. Holomorphic fiberings and multivalued functions of elements of a Banach algebra. *Funct. Anal. Appl.*, 37:122–128, 1973.

- [LKS] Peng Hin Lee, Hidenori Kimura and Yeng Chai Soh. (J, J') -lossless conjugations, (J, J') -lossless factorizations and chain scattering approach to time-varying H^∞ control: one and two-block cases. *Int. J. Control.*, 66:177–198, 1997.
- [Logemann87] Hartmut Logemann. Finitely generated ideals in certain algebras of transfer functions of infinite-dimensional systems. *Int. J. control.*, 45:247–250, 1987.
- [Logemann93] Hartmut Logemann. Stabilization and regulation of infinite-dimensional systems using coprime factorizations. In *Analysis and Optimization of Systems: State and Frequency Domain Approaches for Infinite-Dimensional Systems*, INRIA92, France, Ruth F. Curtain (ed.), 102–139, Springer, 1993.
- [LP] Peter D. Lax and Ralph S. Phillips. *Scattering Theory*. Academic Press, New York, 1967.
- [LS] Georgy S. Litvinchuk and Ilya M. Spitkovsky. *Factorization of Measurable Matrix Functions*. Birkhäuser, 1987.
- [LT93] Irena Lasiecka and Roberto Triggiani. Algebraic Riccati equations arising from systems with unbounded input-solution operator: applications to boundary control problems for wave and plate equations. *Nonlinear Anal.*, 20:659–695, 1993.
- [LT00a] Irena Lasiecka and Roberto Triggiani. *Control Theory for Partial Differential Equations: Continuous and Approximation Theories. I: Abstract Parabolic Systems*. Cambridge University Press, 2000.
- [LT00b] Irena Lasiecka and Roberto Triggiani. *Control Theory for Partial Differential Equations: Continuous and Approximation Theories. II. Abstract Hyperbolic-Like Systems over a Finite Time Horizon*. Cambridge University Press, 2000.
- [LW] J-Cl. Louis and D. Wexler. The Hilbert space regulator problem and operator Riccati equation under stabilizability. *Annales del la Société Scientifique de Bruxelles*, 105:137–165, 1991.
- [LZ] B. M. Levitan and V. V. Zhikov. *Almost Periodic Functions and Differential Equations*, Cambridge University Press, 1982.
- [Mal97] Jarmo Malinen. Minimax control of distributed discrete time systems through spectral factorization. Technical Report A385, Institute of Mathematics, Helsinki University of Technology, Espoo, Finland, 1997.
- [Mal00] Jarmo Malinen. *Discrete Time H^∞ Algebraic Riccati Equations*. Doctoral dissertation, Technical Report A428, Institute of Mathematics, Helsinki University of Technology, Espoo, Finland, 2000.
- [Meinsma] G. Meinsma. J -spectral factorization and equalizing vectors, *Systems and Control Letters*, 25:243–249, 1995.
- [Mik97a] Kalle M. Mikkola. Subregularity and infraregularity of well-posed linear systems. Manuscript, 1997.
- [Mik97b] Kalle M. Mikkola. Technical Report A383, Institute of Mathematics, Helsinki University of Technology, Espoo, Finland, 1997.

- [Mik98] Kalle M. Mikkola. Stable Weakly Regular Systems and Their Algebraic Riccati Equations. In *Mathematical Theory of Networks and Systems, Proceedings of the MTNS98 symposium*, Padova, Italy, 539–542, 1998.
- [MT94a] Christine A. McMillan and Roberto Triggiani. Min-max game theory and algebraic Riccati equations for boundary control problems with analytic semigroups. II: the general case. *Nonlinear Anal.*, 22:431–465, 1994.
- [MT94b] Christine A. McMillan and Roberto Triggiani. Min-max game theory and algebraic Riccati equations for boundary control problems with continuous input-solution map. II: the general case. *Appl. Math. Optim.*, 29:1–65, 1994.
- [Nikolsky] Nikolai K. Nikol'skiĭ. *Treatise on the Shift Operator*. Springer, Berlin etc., 1986.
- [OC98] Job C. Oostveen and Ruth F. Curtain. Riccati equations for strongly stabilizable bounded linear systems. *Automatica J. IFAC*, 34:953–967, 1998
- [Oostveen] Job Oostveen. *Strongly stabilizable infinite-dimensional systems*. Doctoral dissertation, Rijksuniversiteit Groningen, 1999.
- [Pandolfi] Luciano Pandolfi. Dissipativity and Lur'e problem for parabolic boundary control systems. *SIAM J. Control Optim.*, 36:2061–2081, 1998.
- [Park] Jae Myung Park. Bounded convergence theorem and integral operator for operator valued measures. *Czechoslovak Math. J.*, 47:425–430, 1997.
- [Pazy] Amnon Pazy. *Semi-Groups of Linear Operators and Applications to Partial Differential Equations*. Springer, Berlin, 1983.
- [Popov] V. Popov. *Hyperstability of Control Systems*. Springer, Berlin, 1973.
- [Prüss84] Jan Prüss. On the spectrum of C_0 -semigroups. *Trans. Am. Math. Soc.*, 284:847–857, 1984.
- [Prüss93] Jan Prüss. *Evolutionary Integral Equations and Applications*. Birkhäuser, Basel etc., 1993.
- [PS85] Anthony J. Pritchard and Dietmar Salamon. The linear-quadratic control problem for retarded systems with delays in control and observation. *IMA J. Math. Control Inform.*, 2:335–362, 1985.
- [PS87] Anthony J. Pritchard and Dietmar Salamon. The linear quadratic control problem for infinite dimensional systems with unbounded input and output operators. *SIAM J. Control Optim.*, 25:121–144, 1987.
- [PW] Jonathan R. Partington and George Weiss", Admissible observation operators for the right shift semigroup. *Math. Control Signals Systems*, 13:179–192, 2000.
- [Rauch] Jeffrey Rauch. *Partial Differential Equations*. Springer, New York, 1991.

- [Rebarber] Richard Rebarber. Conditions for the equivalence of internal and external stability for distributed parameter systems. *IEEE Trans. Autom. Control*, 38:994–998, 1993.
- [RR] Marvin Rosenblum and James Rovnyak. *Hardy Classes and Operator Theory*. Oxford University Press, New York, 1985.
- [RSW] Leiba Rodman, Ilya M. Spitkovsky and Hugo J. Woerdeman. Carathéodory–Toeplitz and Nehari problems for matrix valued almost periodic functions. *Trans. Am. Math. Soc.*, 350:2185–2227, 1998.
- [Rud73] Walter Rudin. *Functional Analysis*, Tata McGraw–Hill, New Delhi, 1973.
- [Rud76] Walter Rudin. *Principles of Mathematical Analysis*, third ed.. McGraw–Hill, Auckland etc., 1976.
- [Rud86] Walter Rudin. *Real and Complex Analysis*, third ed. McGraw–Hill, New York, 1986.
- [S92] Olof J. Staffans. Stabilization of a distributed system with a stable compensator. *Math. Control Signals Systems*, 5:1–22, 1992.
- [S95] Olof J. Staffans. Quadratic optimal control of stable systems through spectral factorization. *Math. Control Signals Systems*, 8:167–197, 1995.
- [S96] Olof J. Staffans. On the discrete and continuous time infinite-dimensional algebraic Riccati equations. *Systems and Control Letters*, 29:131–138, 1996.
- [S97a] Olof J. Staffans. Quadratic optimal control of regular well-posed linear systems, with applications to parabolic equations. Manuscript.
<http://www.abo.fi/~staffans/publ.htm>
<http://www.abo.fi/~staffans/psfiles/parabol.ps>, 1997.
- [S97b] Olof J. Staffans. Quadratic optimal control of stable well-posed linear systems. *Trans. Am. Math. Soc.*, 349:3679–3715, 1997.
- [S98a] Olof J. Staffans. Coprime factorizations and well-posed linear systems. *SIAM J. Control Optim.*, 36:1268–1292, 1998.
- [S98b] Olof J. Staffans. Quadratic optimal control of well-posed linear systems. *SIAM J. Control Optim.*, 37:131–164, 1998.
- [S98c] Olof J. Staffans. Feedback representations of critical controls for well-posed linear systems. *Internat. J. Robust Nonlinear Control*, 8:1189–1217, 1998.
- [S98d] Olof J. Staffans. On the distributed stable full information H^∞ minimax problem. *Internat. J. Robust Nonlinear Control*, 8:1255–1305, 1998.
- [S98e] Olof J. Staffans. Quadratic optimal control of a parabolic equation. In *Mathematical Theory of Networks and Systems, Proceedings of the MTNS98 symposium*, Padova, Italy, 535–538, 1998.
- [S99] Olof J. Staffans. Admissible factorizations of Hankel operators induce well-posed linear systems. *Systems and Control Letters*, 37:301–307, 1999.
- [S01] Olof J. Staffans. *J-Energy Preserving Well-Posed Linear Systems*. To appear in *Applied Mathematics and Computer Science*, 2001.

- [Sal84] Dietmar Salamon. *Control and Observation of Neutral Systems*. Pitman Publishing Ltd., London, 1984.
- [Sal87] Dietmar Salamon. Infinite dimensional linear systems with unbounded control and observation: a functional analytic approach. *Trans. Am. Math. Soc.*, 300:383–431, 1987.
- [Sal89] Dietmar Salamon. Realization theory in Hilbert space. *Math. Systems Theory*, 21:147–164, 1989.
- [Sarason] Donald Sarason. Toeplitz operators with semi-almost periodic symbols. *Duke Math. J.*, 44:357–364, 1977.
- [Sasane] Amol J. Sasane. *Hankel norm approximation for infinite-dimensional systems*. Doctoral dissertation, Rijksuniversiteit Groningen, 2001.
- [Sbook] Olof J. Staffans. Well-Posed Linear Systems I: General Theory. Book manuscript. <http://www.abo.fi/~staffans/publ.htm>
<http://www.abo.fi/~staffans/psfiles/wellpos.ps>, 2001/07/09.
- [SC] Amol J. Sasane and Ruth F. Curtain. Optimal Hankel norm approximation for the Pritchard-Salamon class of infinite-dimensional systems. *Integr. Equ. Oper. Theory*, 39:98–126. 2001.
- [SF] Béla Sz.-Nagy and Ciprian Foiaş. *Harmonic Analysis of Operators on Hilbert Space*. North-Holland, Amsterdam & London, 1970.
- [Slemrod] M. Slemrod. A note on complete controllability and stabilizability for linear control systems in Hilbert space. *SIAM J. Control*, 12:500–508, 1974.
- [SM] Olof J. Staffans and Kalle M. Mikkola. A minimax formulation of the infinite-dimensional Nehari problem. In *Mathematical Theory of Networks and Systems, Proceedings of the MTNS98 symposium*, Padova, Italy, 539–542, 1998.
- [Smith] Malcolm C. Smith. On stabilization and the existence of coprime factorizations. *IEEE Trans. Autom. Control*, 34:1005–1007, 1989.
- [Stoorvogel] Anton A. Stoorvogel. *The H^∞ Control Problem: A State-Space Approach*. <http://www.win.tue.nl/~wscoas/wscoas/index.html>
<ftp://ftp.win.tue.nl/pub/techreports/wscoas/book2.pdf>, Prentice Hall, Englewood Cliffs, NJ, 1992.
- [SW00] Olof J. Staffans and George Weiss. Compatible versus regular well-posed linear systems. <http://www.abo.fi/~staffans/publ.htm>
<http://www.abo.fi/~staffans/psfiles/mtns00.ps>, in *Proceedings of MTNS2000*, 2000.
- [SW01a] Olof J. Staffans and George Weiss. Transfer functions of regular linear systems. Part II: the system operator and the Lax-Phillips semigroup. Manuscript, 2001.
- [SW01b] Olof J. Staffans and George Weiss. Transfer functions of regular linear systems. Part III: inversions and duality. Manuscript, 2001.

- [Thomas] Erik G. F. Thomas. Vector-valued integration with applications to the operator-valued H^∞ space. *IMA J. Math. Control Inform.*, 14:109–136, 1997.
- [Tolokonnikov] V. A. Tolokonnikov. Estimates in Carleson's corona theorem. Ideals of the algebra H^∞ , the problem of Szekfalvi-Nagy. (Russian) *Zap. Naučn. Sem. Leningrad. Otdel. Mat. Inst. Steklov. (LOMI)*, 113:178–198, 1981.
- [Treil85] Serge R. Treil. The theorem of Adamjan–Arov–Krein: A vector variant. *Zap. Nauchn. Semin. Leningrad. Otdel. Math. Inst. Steklov. (LOMI)*, 141:56–71, 1985 (in Russian).
- [Treil89] Serge R. Treil. Angles between coinvariant subspaces and an operator-valued corona problem. A question of Szekfalvi-Nagy. *Soviet Math. Dokl.*, 38:394–399, 1989.
- [Treil92] Serge R. Treil. The Stable Rank of the Algebra H^∞ Equals 1. *J. Funct. Anal.*, 109:130–154, 1992.
- [Treil94] Serge R. Treil. A counterexample on continuous coprime factors. *IEEE Trans. Autom. Control*, 39:1262–1263, 1994.
- [Treves] François Treves. *Basic Linear Partial Differential Equations*. Academic Press, 1975.
- [Vid] M. Vidyasagar. *Control System Synthesis: a Factorization Approach*. The MIT Press, Cambridge, Massachusetts, 1985.
- [W88] George Weiss. Weak L^p -stability of a linear semigroup on a Hilbert space implies exponential stability. *J. Diff. Equ.*, 76:269–285, 1988.
- [W89a] George Weiss. Admissibility of unbounded control operators. *SIAM J. Control Optim.*, 27:527–545, 1989.
- [W89b] George Weiss. Admissible observation operators for linear semigroups. *Israel J. Math.*, 65:17–43, 1989.
- [W89c] George Weiss. The representation of regular linear systems on Hilbert spaces. In *Control and Optimization of Distributed Parameter Systems*, F. Kappel and K. Kunish and W. Schappacher (eds.), Birkhäuser, Basel, 401–416 1989.
- [W89d] George Weiss. Weakly l^p -stable linear operators are power stable. *Int. J. Systems Sci.* 20:2323-2328, 1989.
- [W91a] George Weiss. Representation of shift-invariant operators on L^2 by H^∞ transfer functions: an elementary proof, a generalization to L^2 , and a counter-example for L^∞ . *Math. Control Signals Systems*, 4:193–203, 1991.
- [W91b] George Weiss. Two conjectures on the admissibility of control operators. In *Control and Optimization of Distributed Parameter Systems*, F. Kappel and K. Kunish and W. Schappacher (eds.), Birkhäuser, Basel, 367–378, 1991.
- [W94a] George Weiss. Transfer functions of regular linear systems. Part I: Characterizations of regularity. *Trans. Am. Math. Soc.*, 342:827–854, 1994.

- [W94b] George Weiss. Regular linear systems with feedback. *Math. Control Signals Systems*, 7:23–57, 1994.
- [WC] George Weiss and Ruth F. Curtain. Dynamic Stabilization of Regular Linear Systems. *IEEE Trans. Autom. Control*, 42:4–21, 1997.
- [Weiss94] Martin Weiss. *Riccati Equations in Hilbert Space: A Popov Function Approach*. Doctoral dissertation, Rijksuniversiteit Groningen, 1994.
- [Weiss97] Martin Weiss. Riccati equation theory for Pritchard–Salamon systems: a Popov function approach. *IMA J. Math. Control Inform.*, 14:45–84, 1997.
- [Winkin] Joseph Winkin. *Spectral Factorization and Feedback Control for Infinite-Dimensional Control Systems*. Doctoral dissertation, Facultés Universitaires Notre-Dame de la Paix à Namur, 1989.
- [WR97] George Weiss and Richard Rebarber. Estimatable linear systems. *Proc. European Control conference*, ECC97, Brussels, Belgium, 1997.
- [WR00] George Weiss and Richard Rebarber. Optimizability and estimatability for infinite-dimensional linear systems. *SIAM J. Control Optim.*, 39:1204–1232, 2000.
- [WW] Martin Weiss and George Weiss. Optimal control of stable weakly regular linear systems. *Math. Control Signals Systems*, 10:287–330, 1997.
- [WZ] George Weiss and Hans Zwart. An example in linear quadratic optimal control, *Systems and Control Letters*, 33:339–349, 1998.
- [Yosida] Kosaku Yosida. *Functional Analysis*. Springer, 1974.
- [Zames] G. Zames. Feedback and optimal sensitivity: model reference transformations, multiplicative seminorms, and approximate inverses. *IEEE Trans. Autom. Control*, 26:301–320, 1981.
- [Zhang] Chuan Y. Zhang. Vector-valued means and their applications in some vector-valued function spaces. *Dissertationes Math.*, 334, 26 pp., 1994.
- [ZDG] Kemin Zhou, John C. Doyle and Keith Glover. *Robust and Optimal Control*. Prentice Hall, Englewood Cliffs, New Jersey, 1996.
- [Ziemer] William P. Ziemer. *Weakly differentiable functions. Sobolev spaces and functions of bounded variation*. Springer, New York, 1989.
- [Zimmermann] F. Zimmermann. On vector-valued Fourier multiplier theorems. *Studia Math.*, 93:201–222, 1989.
- [Zwart] Hans Zwart. Linear Quadratic Optimal Control for Abstract Linear Systems. In *Modelling and Optimization of Distributed Parameter Systems with Applications to Engineering*, Chapman & Hall, New York, 175–182, 1996.

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