Schriftenverzeichnis - List of Publications

(Selected)

(a) Dissertation

"Die Theorie stationärer stochastischer Prozesse und ihre Anwendung in der Spektralanalyse von Zeitreihen". Diss. TU Wien, 1970

(b) Papers

(1)   Mit G. Feichtinger: "The Linear Model Formulation of a Multi-type Branching Process applied to Population Dynamics". JASA (J. of the American Statistical Association) 69, 662-664, 1974

(2)   "Z-Transform and Identification of Linear Econometric Models with Autocorrelated Errors". Metrika 22, 13-25, 1975

(3)   Mit G. Feichtinger: "Nullwachstum der Bevölkerung im linearen populationsdynamischen Modell". Zeitschr. für Bevölkerungswissenschaft 2, 39-53, 1975

(4)   "The Identifiability of Linear Econometric Models with Autocorrelated Errors", I.E.R. (Internat. Economic Review) 17, 26-46, 1976

(5)   Mit H.G. Seifert: "Identifiability and Consistent Estimability in Econometric Models". Econometrica 46, 969-980, 1978

(6)   "The Structural Identifiability of Linear Models with Auto-correlated Errors in the Case of Cross-Equation Restrictions". Journal of Econometrics 8, 23-31, 1978

(7)   Mit W. Dunsmuir und E.J. Hannan: "Vector Linear Time Series Models: Corrections and Extensions". Adv. in Applied Probability 10, 360-372, 1978

(8)   Mit J. Schrader: "Linear Models with Autocorrelated Errors: Identifiability without Minimality Assumptions". Econometrica 47, 495-504, 1979

(9)   Mit E.J. Hannan und W. Dunsmuir: "Estimation of Vector ARMAX Models". Journal of Multivariate Analysis 10, 275-295, 1980

(10)   Mit E.J. Hannan: "Some Properties of the Parametrization of ARMA Systems with Unknown Order". Journal of Multivariate Analysis 11, 474-484, 1981

(11)   "The Properties of the Parametrization of ARMAX Systems and Their Relevance for Structural Estimation and Dynamic Specification". Econometrica 51, 1187-1208, 1983

(12)   Mit B.M. Pötscher und J. Schrader: "The Uniqueness of the Transfer Function of Linear Systems from Input-Output Observations". Metrika 31,157-181, 1984

(13)   Mit B.D.O. Anderson: "Identifiability in Dynamic Errors-in-Variables Models". Journal of Time Series Analysis 5, 1-13, 1984

(14)   Mit B.M. Pötscher: "The Behaviour of the Likelihood Function for ARMA Models". Adv. in Applied Probability 16, 843-865, 1984

(15) "General Structure and Parametrization of ARMA and State Space Systems and its Relation to Statistical Problems". In: E.J. Hannan, P.R. Krishnaiah, M.M. Rao (eds.): Handbook of Statistics 5, North Holland, Amsterdam, 257-277, 1985

(16) "Linear Dynamic Errors-in-Variables Models". In: J. Gani and M. Priestley (eds.): Essays in Time Series and Allied Processes. Papers in honour of E.J. Hannan. Applied Probability Trust, 23-39, 1986

(17) Mit B.D.O. Anderson: "Dynamic Errors-in-Variables Systems with Three Variables". Automatica, Vol. 23, No. 5, 611-616, 1987

(18) Mit E. Reschenhofer und R. Vollmer: "Segmentation of the EEG by Minimization of the Total Gain in Information". Neuropsychobiology 18, 155-159, 1987

(19) Mit W. Fraissler, G. Petritsch und W. Scherrer: "Ein Vergleich von Methoden zur Kurzfristprognose elektrischer Last". Archiv für Elektrotechnik 71, 389-397, 1988

(20) Mit W. Ploberger: Comment on "ARMA Memory Index Modeling of Economic Time Series". Econometric Theory 4, 35-59 , 1988

(21) Mit M. Gevers: "Properties of the Parametrization of Monic ARMA Systems". Automatica, Vol. 25, No. 1 , 87-95, 1989

(22) Mit B.D.O. Anderson: "Linear Dynamic Errors-in-Variables Models: Some Structure Theory". Journal of Econometrics 41, 1-25, 1989

(23) Mit L. Wang: "The Common Structure of Parametrizations for Linear Systems". Linear Algebra and its Applications 122/123/124, 921-941, 1989

(24) Mit B.D.O. Anderson: "Identification of Dynamic Systems from Noisy Data: The Case m*=1". In: A.C. Antoulas (ed.): Mathematical System Theory. (Festschrift in honour of R. E. Kalman on the occasion of his 60th birthday). Springer-Verlag, Berlin, 423-436, 1991

(25) Mit B.D.O. Anderson: "Identification of Dynamic Systems from Noisy Data: Single Factor Case". Mathematics of Control, Signals, and Systems, (MCSS) Vol.6, No 1, 10-29, 1993

(26) Mit K. Peternell und W. Scherrer: "Consistency and Relative Efficiency of Subspace Methods", Automatica, 31, No. 12, 1865-1875, 1995

(27) Mit B.D.O. Anderson, L. Farina und L. Benvenuti: "Nonnegative Realization of a Linear System with Nonnegative Impulse Response", IEEE Tr. CAS (Transactions on Circuits and Systems) 43, No 2, 1-8, 1996

(28) Mit B.D.O. Anderson und W. Scherrer: " Solution Set Properties for Static Errors-in-Variables Problems", Automatica, 32 (7), 1031-1035, 1996

(29) Mit K. Peternell und W. Scherrer: "Statistical Analysis of Novel Subspace Identification Methods", Signal Processing, 161-177, 1996

(30) "Time Series Econometrics", CWI Quarterly, 9, No. 3, 165-179, 1996

(31) Mit C. Heij und W. Scherrer: "System Identification by Dynamic Factor Models", SIAM Journal on Control and Optimization, Vol.35, No. 6, 1924-1951, 1997

(32) Mit G. Bauer, A. Gleiß, E. Glenck, T. Matyus: "Identification of Material Flow Systems", <u>Environmental Science and Pollution Research</u>, Vol. 4, No.2, 105-112, 1997

(33) Mit C. Heij und W. Scherrer: "System Identification by Dynamic Factor Models", Proceedings of <u>36th IEEE Conference on Decision and Control</u>, San Diego, 1997

(34) Mit W. Scherrer: "A Structure Theory for Linear Dynamic Errors in Variables Models", <u>SIAM Journal on Control and Optimization</u>, Vol. 36, No. 6, 2148-2175, 1998

(35) Mit W. Schachermayer: "The Set of Observationally Equivalent Errors-in-Variables Models", <u>Systems and Control Letters</u>, 34, 101-104, 1998

(36) Mit M. Dörfler: "A Structure Theory for Identification of Recurrent Neural Nets, Part 1", Proceedings of <u>NoLCos (4th IFAC 'Nonlinear Control Systems Design Symposium)</u>, 459-464, 1998

(37) Mit A. Gleiß, T. Matyus, G. Bauer, E. Glenck und C. Lampert: „Identification of Material Flow Systems-Extensions and Case Study", <u>Environmental Science and Pollution Research</u>, Vol. 5, No. 4, 245-258, 1998

(38) Mit M. Wagner, E. Altan und H. Yildiz: „Ökonomische und massenflußbasierte Verfahren zur Bewertung ökologischer Probleme", <u>SUSTAIN</u> Eigenverlag, Institut für Verfahrenstechnik, TU. Graz, 1998

(39) Mit D. Bauer und W. Scherrer: „Consistency and Asymptotic Normality of some Subspace Algorithms for Systems without Observed inputs", <u>Automatica</u>, 35, 1243-1254, 1998

(40) Mit D. Bauer: "Balanced Canonical Forms for System Identification", <u>IEEE Tr. AC (Transactions on Automatic Control)</u>, 44, 1118 – 1131, 1998

(41) „Geschichte und Perspektiven der Ökonometrie", <u>RWI</u> (Rheinisch-Westfälisches Institut für Wirtschaftsforschung) – <u>Mitteilungen</u>, 50, 3,109-127, 1999

(42) „Ökonometrie." In: K. Acham (Hrsg.): <u>Cognitio Humana</u>, Passagenverlag, Wien, 177-203, 2000

(43) "Linear Dynamic Multiinput/Multioutput Systems." In: D. Pena, et.al. (eds.): <u>A Course in Time Series Analysis</u>, John Wiley, New York, Chapter 16, 436-456, 2001

(44) Discussion "Comments on the Contribution by C.W.J. Granger and J.J. Heckman" <u>Journal of Econometrics</u>, 100, 71 – 72, 2000

(45) "System Identification – General Aspects and Structure" In G. Goodwin (ed.) <u>"System Identification, and, Adaptive Control"</u> (Festschrift for B.D.O. Anderson), Springer, London, 3 – 26, 2001

(46) Mit G. Bauer und W. Scherrer: „Time Series Models for Short Term Forecasting of Ozone in the Eastern Part of Austria" in <u>Environmetrics</u>, 12, Issue 2, 117 – 130, 2001

(47) "Wold Decomposition" In: M. Hazewinkel (ed): <u>Encyclopeadia of Mathematics</u>, in supplement III, 446 – 447, 2001

(48) Mit S. Weiland und W. Scherrer: "On Continuity and Consistency of $l_{infinity}$-optimal Models, <u>Systems and Control Letters</u>, 44, 167 – 176, 2001

(49)   Mit T. Ribarits und T. McKelvey: "An Analysis of the Parametrization by Data Driven Local Coordinates for Multivariable Linear Systems", <u>Automatica,</u> Vol 40, No 5, 789 – 803, 2004

(50)   Mit T. Ribarits und B. Hanzon: „An Analysis of Separable Least Squares Data Driven Local Coordinates for Maximum Likelihood Estimation of Linear Systems", <u>Automatica</u>, Special Issue on Data-Based Modelling and System Identification, Vol 41, No 3, 531-544, 2005

(51)   Mit T. Ribarits und B.Hanzon: "On New Parametrization Methods for the Estimation of State-Space Models", <u>International Journal of Adaptive Control and Signal Processing</u>, Special Issue on Subspace-based Identification, Vol 18., 717-743, 2004

(52)   Mit E. Hamann: "Identification of Factor Models for Forecasting Returns", <u>"Journal of Financial Econometrics"</u>, Vol 3, No 2, 256-281, 2005

(53)   Mit M. Überwimmer: "Modelling Effects of Advertising for Non-Durable Goods" in: P. Neijens, C. Hess, B. van den Putte und E. Smit " <u>Content and Media Factors in Advertising</u>", Spinhuis Publishers, Amsterdam, 189-194, 2004

(54)   "Linear Models for Multivariate Time Series", in: M. Winterhalder, B.Schelter and J. Timmer (eds.): <u>Handbook of Time Series Analysis</u>, Wiley VCH, Berlin, 283-308, 2006

(55)   Mit Ch. Zinner: "Modelling High Dimensional Time Series by Generalized Linear Factor Models: An Introductory Survey", Festschrift for Tyrone Duncan, <u>Communications in Information and Systems</u>, Vol 7, 153-166, 2007

(56)   "A Birds Eye View on System Identification", in: A. Chiuso, A. Ferrante and S. Pinzoni (eds.): Festschrift for Giorgio Picci, <u>Lecture Notes in Information and Control Sciences</u>, Vol 364, Springer, 59-71, 2007

(57)   Mit BDO Anderson: "Generalized Linear Dynamic Factor Models – A Structure Theory". Proceedings of <u>IEEE CDC 2008</u>, Cancun, 1980-1985, 2008

(58)   Mit BDO Anderson: "Properties of Zero-free Transfer Function Matrices", <u>SICE Journal of Control, Measurement, and System Integration</u> (Invited Paper), Vol 1, No 4, 284-292, 2008

(59)   Mit BDO Anderson: "Properties of Zero-free Spectral Matrices," <u>IEEE Tr. AC (Transactions on Automatic Control)</u>, 2365-2375, 2009

(60)   Mit A. Filler, BDO Anderson, W. Chen und Ch. Zinner: "Generalized Linear Dynamic Factor Models - An Approach via Singular Autoregressions". Proceedings of <u>ECC Budapest</u>, 1203-1208, 2009

(61)   Mit A.Graef, M. Hartmann und T. Kluge: "Regression-based Analysis of Synchronization in Multichannel EEG in Epilepsy". Proceedings of <u>IEEE EMBC</u> (Engineering in Medicine and Biology), Minneapolis, 4743 – 4746, 2009

(62)   Mit BDO. Anderson, W. Chen und A. Filler: "AR Models of Singular Spectral Matrices": <u>Proceedings of IEEE CDC 2009,</u> Shanghai, 5721-5726, 2009

(63)   Mit BDO Anderson, W. Chen, A. Filler und Ch. Zinner: "Generalized Linear Dynamic Factor Models - An Approach via Singular Autoregressions". <u>European Journal of Control</u>, 16, 211-224, 2010 (invited paper, with discussions)

(64) Mit E.W. Bai: "An Interactive Term Representation and Estimation Approach to Non-parametric FIR Nonlinear System Identification". <u>IEEE Tr. AC (Transactions on Automatic Control)</u>, 1952-1957, 2010

(65) Mit BDO Anderson, W. Chen und A. Filler: "Modelling High Dimensional Time Series by Generalized Factor Models", Semi Plenary Lecture at the MTNS (Mathematical Theory of Networks and Systems) Symposium 2010, Proceedings of <u>MTNS 2010</u>, Budapest, 323-329, 2010

(66) Mit A. Filler, BDO Anderson, W. Chen und E. Felsenstein: „Singular Autoregressions for Generalized Dynamic Factor Models". Proceedings of the <u>IEEE CDC 2010</u>, Atlanta (Invited Session); 2875-2879; 2010

(67) Mit D. Rosadi: "Estimating the Codifference Function of Linear Time Series Models with Infinite Variance", <u>Metrika</u>, Vol 73, No 3, 395-429, 2011

(68) Mit W. Chen, BDO Anderson und A. Filler: "Solutions of Yule- Walker Equations for Singular AR Processes". <u>Journal of Time Series Analysis</u>, Vol 32, No 5, 531-538, 2011

(69) Mit A. Filler und B. Funovits: "AR Systems and AR Processes, the Singular Case" <u>Communications in Information and Systems</u> (Festschrift for B.D.O. Anderson), Vol 11, No 3, 225-236, 2011

(70) Mit M. Zamani, W. Chen, BDO Anderson und Alexander Filler „On the Zeros of Blocked Linear Systems with Single and Mixed Frequency Data", <u>IEEE CDC 2011</u>, Orlando, 4312-4317, 2011

(71) Mit W. Chen, BDO Anderson und A. Filler: "Properties of Blocked Linear Systems", <u>Automatica</u>, Vol 48, No 10, 2520-2525, 2012

(72) Mit BDO. Anderson, W. Chen und A. Filler: "AR Models of Singular Spectral Matrices": <u>Automatica</u>, Vol 48, No 11, 2843-2849, 2012

(73) Mit K. Neusser: „ Prognose uni- und multivariater Zeitreihen", in Mertens P. und Rässler S. (Hrsg) „<u>Prognoserechnung</u>", 7. Auflage, Springer-Verlag, Berlin Heidelberg, 225-256, 2012

(74) Mit C. Flamm, U. Kalliauer, M. Waser, und A. Graef: „Graphs for Dependence and Causality in Multivariate Time Series" in L. Wang und H. Garnier (Hrsg.) ".<u>System Identification, Environmental Modelling, and Control System Design</u>", Springer, 133-157, 2012

(75) Mit A. Graef, C. Flamm, S. Pirker, und C. Baumgartner: "A Physiologically Motivated ECoG Segmentation Method for Epileptic Seizure Onset Zone Detection", Proceedings of the <u>IEEE EMBC</u> (Engineering in Medicine and Biology) 2012, San Diego, 3500-3503, 2012

(76) Mit B.D.O. Anderson, W. Chen, P. Zadrozny, M. Eichler, E. Felsenstein, B. Funovits und M. Zamani: „Identifiability of Regular and Singular Multivariate Autoregressive Models from Mixed Frequency Data", Proceedings of the <u>IEEE CDC,</u> Maui, 4312-4317, 2012

(77) Mit M. Zamani, B.D.O. Anderson and E. Felsenstein: "On Modeling of Tall Linear Systems with Multirate Outputs", <u>9th Asian Control Conference ASCC</u>, 1-6, 2013

(78) Mit M. Zamani, E. Felsenstein and B.D.O. Anderson: "Mixed Frequency Structured AR Model Identification", European Control Conference ECC 2013, Zurich, 1928-1933, 2013

(79) Mit A. Graef, M. Hartmann, C. Flamm, C. Baumgartner, T. Kluge: „ A Novel Method for the Identification of Synchronization Effects in Multichannel ECoG with an Application to Epilepsy" Biological Cybernetics, Vol 107, No 3, 321-335, 2013

(80) Mit C. Flamm, A. Graef, S. Pirker, C. Baumgartner: „Influence Analysis for High-Dimensional Time Series with an Application to Epileptic Seizure Onset Zone Detection" Journal of Neuroscience Methods, Vol 214, No 1, 80-90. 2013

(81) Mit A. Graef, C. Flamm, S. Pirker, C. Baumgartner, G. Matz: „Automatic Ictal HFO Detection for Determination of Initial Seizure Spread" Proceedings of the IEEE EMBC (Engineering in Medicine and Biology), Osaka, 2096-2099, 2013

(82) Mit E. Felsenstein, B. Funovits, BDO Anderson, M. Zamani: „Exact Interpolation in Singular Multirate AR Systems", Manuscript, Research Group Econometrics and System Theory, TU Vienna, 2013

(83)   Mit M. Waser, H. Garn, T. Benke, P. Dal-Bianco, G. Ransmayr, D. Grossegger, R. Schmidt: „EEG in the Diagnostcs of Alzheimer's Disease", Statistical Papers, Vol 54, No 4, 1095-1107, 2013

(84)   Mit B.D.O. Anderson und A. Filler: „Generic Propperties of System Zeros", Manuscript, Research Group Econometrics and System Theory, TU Vienna, 2013

(85) Mit H. Garn, M. Waser, T. Benke, P. Dal-Bianco, G. Ransmayr, H. Schmidt, G. Sanin, P. Santer, G. Caravias, S. Seiler, D. Grossegger, W. Fruehwirt, and R. Schmidt, "Quantitative Electroencephalographic Biomarkers Explain Severity of Early Alzheimer's Disease in the PROspective DEMentia Registry Austria (PRODEM)", To appear in Clinical Neurophysiology, 2015

(86) Mit H. Garn, M. Waser, T. Benke, P. Dal-Bianco, G. Ransmayr, H. Schmidt, G. Sanin, P. Santer, G. Caravias, S. Seiler, D. Grossegger, W. Fruehwirt, and R. Schmidt, "Electroencephalographic Complexity Markers Explain Neuropsychological Test Scores in Alzheimer's Disease", IEEE Int´l Conf. BHI 2014, 496-499

(87) Mit H. Garn, M. Waser, R. Schmidt, P. Dal-Bianco, G. Ransmayr, J. Zeitlhofer, H. Schmidt, S. Seiler, G. Sanin, G. Caravias, P. Santer, D. Grossegger, W. Fruehwirt, and T. Benke, "Quantitative EEG in Alzheimer´s Disease: Cognitive State, Resting State and Association with Disease Severity", Int´l Journal of Psychophysiology,390-397, 2014

(88) Mit M. Waser, H. Garn, R. Schmidt, T. Benke, P. Dal-Bianco, G. Ransmayr, H. Schmidt, S. Seiler, G. Sanin, F. Mayer, G. Caravias, D. Grossegger, W. Fruehwirt, „Quantifying synchrony patterns in the EEG of Alzheimer's patients with linear and non-linear connectivity markers", Journal of Neural Transmission, 123(3), 297-316, 2016

(89) M. Waser, H. Garn, M. Deistler, T. Benke, P. Dal-Bianco, G. Ransmayr, H. Schmidt, G. Sanin, P. Santer, G. Caravias, S. Seiler, D. Grossegger, W. Fruehwirt, and R. Schmidt, "Using Static and Dynamic Canonical Correlation Coefficients as Quantitative EEG Markers for Alzheimer's Disease Severity", Proc. IEEE Int´l Conf. EMB 2014, 2801-2804

(90)   Mit W. Scherrer und B.D.O. Anderson: "The Structure of Generalized Linear Dynamic Factor Models" in J. Beran, Y Feng und H. Hebbel (eds) "Empirical Economic and Financial Research - Theory, Methods and Practice", Springer 2015, 379-400

(91)   Mit M. Waser, H. Garn, R. Schmidt, T. Benke, P. Dal-Bianco, G. Ransmayr, H. Schmidt, S. Seiler, G. Sanin, F. Mayer, G. Caravias, D. Grossegger und W. Fruehwirt: „Quantifying synchrony patterns in the EEG of Alzheimer's patients with linear and non-linear connectivity markers". J Neural Transmission 123, 297-316, 2016, available online

(92)   Mit L. Koelbl, A. Braumann und E. Felsenstein: "Estimation of VAR Systems from Mixed Frequency Data: The Stock and the Flow Case", Advances in Econometrics, Vol 35, 43-73, 2016

(93)   Mit A. Graef: "Fokus-Erkennung bei Epilepsiepatienten mithilfe moderner Verfahren der Zeitreihenanalyse". Schnappschüsse moderner Mathematik aus Oberwolfach 8, 1-11, 2016

(94)   Mit B.D.O. Anderson, E. Felsenstein, B. Funovits und M. Zamani: "Multivariate AR Systems and Mixed Frequency Data: G-Identifiability and Estimation", Econometric Theory 32, 793-826, 2016, available online

(95)   Mit B.D.O. Anderson, E. Felsenstein und L. Koelbl: " The Structure of Multivariate AR and ARMA Systems: Regular and Singular Systems; the Single and the Mixed Frequency Case", Journal of Econometrics 192, 366-373, 2016, available online

(96)   Mit L. Koelbl und B.D.O. Anderson: "Non-Identifability of VMA and VARMA Systems in the Mixed Frequency Case", Econometrics and Statistics, 2017, available online

(97)   Mit L. Koelbl; "A New Approach for Estimating VAR Systems in the Mixed-Frequency Case", Statistical Papers, 2018, 1-10

(98)   Mit A. Braumann und D. Fresoli: "Generalized Linear Dynamic Factor Models - Estimation and Forecasting in the Single- and Mixed-Frequency Case", Mimeo, 2016

(99)   Mit M. Wagner: "Cointegration in Singular ARMA Models", Economics Letters, 155, 39-42, 2017 [DOI]

(100)   Mit C. Coronel, H. Garn, M. Waser, T. Benke, P. Dal-Bianco, G. Ransmayr, S. Seiler, D. Grossegger und R. Schmidt: "Quantitative EEG Markers of Entropy and Auto Mutual Information in Relation to MMSE Scores of Probable Alzheimer's Disease Patients", Entropy 2017, 19(3), 130

(101)   Mit BDO Anderson and Jean-Marie Dufour: "On the Sensitivity of Granger Causality to Errors-In-Variables, Linear Transformations and Subsampling" Journal of Time Series Analysis, Vol 40, No 1, 2019, 102-123

(102)   Mit W. Scherrer: "Vector autoregressive moving average models" In: H. D. Vinod and C.R. Rao (eds): Handbook of Statistics, Vol 41, Conceptual Econometrics Using R, 2019, 145-191

(c) Bücher

Mit E.J. Hannan: "The Statistical Theory of Linear Systems". Wiley, New York, 1988, Reprint in <u>SIAM Classics in Applied Mathematics</u>, Philadelphia, 2012

Mit W. Scherrer: "Modelle der Zeitreihenanalyse". Birkhäuser Springer, Cham, 2018

List of abbreviations:

CDC: Conference on Decision and Control

CWI: Center of Mathematics and Computer Science, Amsterdam

ECAS: European Courses in Advanced Statistics

ECC: European Control Conference

ECMI: European Consortium for Mathematics in Industry

IEEE: The Institute of Electrical and Electronics Engineers

MTNS: Mathematical Theory of Networks and System

SIAM: The Society for Industrial and Applied Mathematics