Short Bio
Manfred Deistler

Manfred Deistler is an Emeritus Professor of Econometrics and System Theory at Vienna University of Technology. He received his Dr. techn. (approximately corresponding to a PhD) from Vienna University of Technology in 1970. Manfred Deistler has served on the editorial board of a number of journals, at present he is an Associate Editor of Journal of Econometrics and he is a member of the Advisory Board of Econometric Theory. He is a Fellow of the Econometric Society, a Fellow of IEEE (The Institute of Electrical and Electronic Engineers) and a Fellow of the Journal of Econometrics.

Manfred Deistler´s research interests are in econometrics, system identification and time series analysis. As far as theory and methods are concerned, the focus of his work is on structure theory and estimation for multivariate ARMAX- and state space systems and for linear dynamic factor- and errors- in- variables models. In particular his research areas were: Identifiability in multivariate ARMAX systems, with an emphasis on the „structural“ case, parametrizations of multivariate ARMAX and state space systems and their relation to estimation, asymptotic properties of maximum likelihood estimators, asymptotic properties of subspace estimators, data-driven parametrizations for state space systems and identifiability in errors-in-variables models. His current research interests are modeling of high dimensional time series, in particular by generalized dynamic factor models, singular AR systems (structure theory and Yule Walker estimators), and time series modeling from mixed frequency data (generic identifiability, asymptotic distributions of extended Yule Walker estimators and of MLE‘s, blocking). As far as applications concerned, his current interests are: Analysis of electroencephalograms (focus detection in epileptic seizures based on ECoG’s, EEG and Alzheimer), forecasting of financial assets and analysis and forecasting of sales data.

Publications include:

- "The Statistical Theory of Linear Systems". Wiley, New York, 1988, Reprint in SIAM Classics in Applied Methamatics, Philadelphia, 2012 (with E.J. Hannan)
- "Identifiability and Consistent Estimability in Econometric Models". Econometrica 46, 969-980, 1978 (with H.G. Seifert)
- "The Structural Identifiability of Linear Models with Auto-correlated Errors in the Case of Cross-Equation Restrictions". Journal of Econometrics 8, 23-31, 1978

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

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

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

- "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

- "The Common Structure of Parametrizations for Linear Systems". Linear Algebra and its Applications 122/123/124, 921-94, 1989 (with L. Wang)

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

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

- "A Structure Theory for Linear Dynamic Errors in Variables Models". SIAM Journal on Control and Optimization, Vol. 36, No. 6, 2148-2175, 1998 (with W. Scherrer)

- "Consistency and Asymptotic Normality of some Subspace Algorithms for Systems without Observed Inputs". Automatica, 35,, 1243-1254, 1999 (with D. Bauer und W. Scherrer)

- "An Analysis of the Parametrization by Data Driven Local Coordinates for Multivariable Linear Systems". Automatica,Vol. 40, No. 5, 789-803, 2004(with T. Ribarits und T. McKelvey)

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

- "Identification of Factor Models for Forecasting Returns". Journal of Financial Econometrics, Vol.3, No 2, 256-281, 2005 (with E. Hamann)

- "Properties of Zero-free Transfer Function Matrices". SICE Journal of Control, Measurement, and System Integration (Invited Paper), Vol.1, No.4, 284-292, 2008 (with BDO Anderson)

- "Properties of Zero-free Spectral Matrices". IEEE Tr. AC (Transactions on Automatic Control) , 2365-2375, 2009(with BDO Anderson)

- “Generalized Linear Dynamic Factor Models - An Approach via Singular Autoregressions”. European Journal of Control (Invited paper, with discussion), Vol. 16, No. 3, 211-224, 2010 (with BDO Anderson, W. Chen, A. Filler and Chr. Zinner)
- “AR Systems and AR Processes, the Singular Case” Communications in Information and Systems, Vol 11, No 3, 225-236, 2011 (with A. Filler and B. Funovits)
- "Solutions of Yule- Walker Equations for Singular AR Processes", Journal of Time Series Analysis, Vol 32, No 5, 2011, 531-538 (with W. Chen, B.D.O. Anderson and A. Filler)
- "Properties of Blocked Linear Systems", Automatica, Vol 48, No. 10, 2012, 2520-2525 (with W. Chen, B.D.O. Anderson and A. Filler)
- "Autoregressive Models of Singular Spectral Matrices", Automatica, Vol 48, No. 11, 2012 pp. 2843–2849 (with B.D.O. Anderson, W. Chen and A. Filler)
- “Multivariate AR Systems and Mixed Frequency Data: g- Identifiability and Estimation”, Econometric Theory, 2015, online version available (with Mit B.D.O. Anderson, E. Felsenstein, B. Funovits, L. Koelbl and M. Zamani)
- "The Structure of Multivariate AR and ARMA Systems: Regular and Singular Systems; the Single and the Mixed Frequency Case”, Journal of Econometrics, Vol 192, No 2, pp. 366-373, 2016 (with B.D.O. Anderson, E. Felsenstein, L. Koelbl)
- "Estimation of VAR Systems from Mixed Frequency Data: The stock and the flow case”, Advances in Econometrics, Vol 35, pp. 43-73, 2016 (with L. Koelbl, A. Braumann and E. Felsenstein)
- 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
- “Non-Identifability of VMA and VARMA Systems in the Mixed Frequency Case” Econometrics and Statistics, 2017, available online (with L. Koelbl and B.D.O. Anderson)
- “Cointegration in Singular ARMA Models”, Economics Letters, 2017, (with M. Wagner)