

PERSONAL DATA RESUME

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2628 CD Delft, The Netherlands

Personal data Date/place of birth: 1966, The Netherlands
Nationality: Dutch

Degrees Ph.D., June 1993, TU Delft, cum laude
Ir. (M.Sc. engineering equivalent), 1988, TU Delft, cum laude

Awards 2005 elected IEEE Fellow
1997 IEEE Signal Processing society paper award (area Stat. Signal and Array Processing)
1994 IEEE Signal Processing society paper award (area VLSI for Signal Processing)

1. EDUCATION

- [1993-1994] *Postdoctoral research position, Stanford University*, Information Systems Lab (Prof. A. Paulraj, Prof. T. Kailath) and Scientific Computing/Computational Mathematics (Prof. G. Golub), during 1 year. Research in the area of sensor array signal processing algorithms for wireless communication applications.
- [1989-1993] *Ph.D. research program in the area of system theory at the Circuits and Systems group, Dept. Electrical Eng., TU Delft*. Graduation cum laude June 1993. Thesis advisor: Prof. P.M. Dewilde, title: “Time-varying system theory and computational modeling—Realization, approximation, and factorization”.
- [1988] *Student traineeship at Philips Research Laboratories*, Eindhoven, The Netherlands, three months, in the field of Computer Graphics [219].
- [1984-1988] *Electrical engineering degree course at TU Delft*, with specialization in computer science. Graduation (M.Sc. level) cum laude in December 1988. Thesis research with Prof. E. Deprettere on parallel implementation of a direction finding algorithm [75].

2. EXPERIENCE

Positions

- [2006–] Chairman, Circuits and Systems Group, Fac. EEMCS, TU Delft
- [2001–] “Antoni van Leeuwenhoek” Full Professor, TU Delft, Fac. EEMCS (Circuits and Systems Group)
- [1999-2001] “Universitair hoofddocent” (associate professor level), TU Delft, Dept. Electr. Eng. (Circuits and Systems Group) and DIMES (Delft Inst. of Microelectronics).
- [1997–1998] “Universitair docent” (assistant professor level), TU Delft

[1995-1996] Research Scientist, TU Delft

Longer visits

[1997] Stanford University, CA (Prof. A. Paulraj, ISL), 2 months.

[1997] ENST Paris (Prof. P. Duhamel), 3 months.

[1996] Stanford University, CA (Prof. A. Paulraj, ISL), 2 months.

[1996] Indian Inst. of Science, Bangalore, India (Prof. S.K. Nandy, CADLab, Prof. V.U. Reddy, ECE), 2 weeks.

[1995] Chalmers Univ. of Techn., Göteborg, Sweden (Prof. M. Viberg, Dept. Applied Electr.), 1 month.

[1995] Stanford University, CA (Prof. A. Paulraj, ISL), 2 months.

[1990] Weizmann Inst. of Science, Rehovot, Israel (Prof. H. Dym, Dept. Theor. Math.), 3 months.

Research grants

[2012-] “SHINE”, TU Delft DIRECT project for in-city climate monitoring using mobile and fixed sensors. Work package share €250k.

[2011-] “Synthesis of signal processing and radio astronomical calibration and imaging techniques”, NWO-TOP project for new approaches to calibration and imaging. Work package share €250k.

[2010-] “OLFAR”, national (STW) project on the design of a radio telescope in space. Work package share €220k.

[2010-] “FASTCOM”, national (STW) project on high-bandwidth low-latency communication inside a control loop for a wafer stepper. €500k.

[2006-2009] “MIMO for the Mass-Market”, national (IOP-GenCom) project on source separation for WLAN signals and adaptive RF. Work package share €180k.

[2003-2005] “U-BROAD”, EU 6-th framework STREP project on improved data rates for broadband over telephone wires, work package share €110k.

[2003-2009] “VICI”, NWO-STW personal research grant, €1.2M.

[2002-2006] “Air-link”, national (Freeband KI) project on Ultra-Wideband radio and ad-hoc networks, workpackage leader for Signal Processing and Multi-Access Techniques, work package share €700k.

[2002-2005] “Beyond-3G”, national (BTS) project with Ericsson Research on enhancing data capacity for UMTS and beyond, work package share €300k.

[1997-2003] “*Nulling of obstructing electromagnetic interference*”, national (STW) project on on-line interference detection and suppression using array processing techniques at the radio astronomy site in Westerbork, The Netherlands, €500k.

IEEE activities

[2011-2013] Chair, IEEE Signal Processing Society Fellow Reference Committee (Member since 2009)

[2010-2011] Member, IEEE TAB Periodicals Review and Advice Committee

[2008] Member, IEEE TAB Periodicals Committee

[2008-2013] Member, IEEE Signal Processing Society Awards Board

- [2011] Technical Co-Chair, ICASSP 2011 (Prague)
 - [2009–2011] Member, IEEE Signal Processing Society Technical Directions Board
 - [2008] Organizing committee ICASSP 2008 (Special sessions chairman)
 - [2006–2007] Member, IEEE Signal Processing Society Long Range Planning and Implementation Committee
 - [2006–2008] Elected Member-at-Large, IEEE Signal Processing Society Board of Governors
 - [2002–2008] Member, IEEE Signal Processing Society Publications Board
 - [2006–2008] Editor-in-Chief, IEEE Transactions on Signal Processing (65 Associate Editors, 5000 pag/jaar)
 - [2005–2010] Member of IEEE Signal Processing Society Sensor Arrays and Multichannel Technical Committee (SAM-TC).
 - [2003–2006] Member of IEEE Circuits and Systems Society Technical Committee for Independent Component Analysis
 - [2002–2005] Editor-in-Chief, IEEE Signal Processing Letters
 - [1998–2004] Chairman of IEEE Signal Processing Society Technical Committee for Communications (SPCOM-TC) (2002-2004). Vice-chair (2000-2001); Member (1998-2004)
 - [1998–2001] Associate Editor, IEEE Trans. Signal Processing.
 - [1989] Chairman of the IEEE Student Branch Delft.
- Technical program committee member for the IEEE Conference on Statistical Signal and Array Processing Conference (1998), IEEE workshop on Signal Processing Advances in Wireless Communications (since 2001), IEEE ICASSP (since 2003), Int. Workshop on UWB Systems and Technology (2003, 2004), IEEE Independent Component Analysis Workshop 2003, IEEE Sensor Array and Multichannel Signal Processing Workshop (since 2004)
- Member of the IEEE since 1987.

Special issue organization

- [2010] Special issue on astronomy and cosmology, IEEE Signal Processing Magazine, Jan. 2010
- [2008] Special Issue, “Signal processing for astronomical and space research applications”, IEEE J. Sel. Topics in Signal Processing, 2008.
- [2007] Special Issue, “Performance limits of ultra-wideband systems,” IEEE J. Sel. Topics in Signal Processing, 2007.
- [2006] Co-editor of a book “Space-time wireless systems: from array processing to MIMO communications, Cambridge Univ. Press [1]
- [2007] Special Issue “Performance Limitations of UWB Communication Systems”, IEEE J. Special Topics in Signal Processing.
- [2001] Special issue “Signal processing for multiuser wireless communications”, Journal of Communications and Networks, Sept. 2001.

Special session organization

- [2005] Special session on Signal Processing for Radio Astronomy at ICASSP 2005, Philadelphia, March 2005.

- [2001] Invited session on interference cancellation for radio astronomy, URSI General Assembly, August 2002.
- [2000] Two special sessions on “Blind algorithms for Communication” European Signal Processing conference (EUSIPCO), Tampere, Finland.
- [1993] Special session on Computational Linear Algebra techniques, European Conference on Circuit Theory and Design (ECCTD-93, Davos, Switzerland).

Keynote lectures

- [2012] Invited keynote speaker at the Eurasip EUSIPCO conference, Bucharest, August 2012. (1400 att.)
- [2010] Invited keynote speaker at the IEEE workshop on Sensor Arrays and Multichannel (SAM), Israel, October 2010: “Calibration Challenges for Large Radio Telescope Arrays” (100 att.)
- [2010] Keynote Lecture “Structures in multi-user communication signal processing,” Summer school on models for embedded signal processing systems, Lorenz Center, Leiden 2010 (50 att.)
- [2004] Invited keynote speaker at the IEEE workshop on Sensor Arrays and Multichannel (SAM), Barcelona, July 2004. (100 att.)
- [1999] Invited keynote speaker at the 2nd IEEE workshop on Signal Processing Advances in Wireless Communications (SPAWC), Annapolis. (140 att.)

Other professional activities

- [2011] Member, International Square Kilometre Array (SKA) Science and Engineering Committee Expert Panel on RFI and EMI issues
- [2007-2014] Chairman, STW perspectief program “Autonomous sensor systems” (ASSYS), comprising 8 research projects, total investment €7M.
- [2006] Member, International Square Kilometre Array (SKA) RFI Assessment Task Force
- [1996] Organization and teaching a 4-day post-academic course for industry on “Signal processing for communications”
- [1996] Co-organization of a 1/2-day “smart antenna technology overview” course for wireless communications industry, at Stanford University (130 participants)
- [1990] Organization of a 7-day international workshop “Algorithms and Parallel VLSI Architectures”, Pont-à-Mousson, France (140 participants) [5].

TU Delft committees

- [2012] Revision BSc Curriculum Electrical Engineering (Curriculumcommissie EE)
- [2010-2013] Member, Board of Professors (advisory board for the Board of Directors of TU Delft)
- [2010-] Management Team, Delft Research Center on ICT
- [2010] Committee Implementation Renewed BSc in Electrical Engineering (IVBEE)
- [2006-2008] Member of the educational committee for the degree course for Electrical Engineering
- [2006-2008] Chairman of the educational committee for the degree courses for Computer Engineering and Embedded Systems
- [2005-2009] Member of the Permanent Committee for Science (VCWb), Fac. EEMCS

PhD students

- Albert-Jan Boonstra (2005)
- Relja Djapic (2006)
- Zijian Tang (2007)
- Hieu Dang (2008)
- Sebastiaan van der Tol (2009)
- Kun Fang (2010)
- Stefan Wijnholds (2010)
- Vijay Venkateswaran (2010)
- Claude Simon (2011)
- Yiyin Wang (2011)

Current:

- Mu Zhou
- Tao Xu
- Raj Thilak Rajan
- Seyran Khademi
- Millad Mouri Sardarabadi
- Sundeep Chepuri
- Venkat Roy

Teaching

Current courses taught at TU Delft:

- *Digital Signal processing* (2nd year undergraduate level).
- *Digital signal processing* (with G. Leus, 4th year undergraduate level).
- *Signal processing for communications* (with G. Leus, 4th year undergraduate level).

3. PUBLICATIONS

Books

- [1] H. Boelcskei, D. Gesbert, C. Papadias, and A.J. van der Veen, eds., *Space-time wireless systems: From array processing to MIMO communications*. Cambridge: Cambridge University Press, 2006. ISBN-13 978-0-512-85105-3.
- [2] A.J. van der Veen, “De Matrixrevolutie,” May 2005. Inaugural speech.
- [3] P.M. Dewilde and A.J. van der Veen, *Time-varying systems and computations*. Dordrecht: Kluwer academic publishers, June 1998.
- [4] A.J. van der Veen, *Time-Varying System Theory and Computational Modeling*. PhD thesis, Delft University of Technology, Delft, The Netherlands, June 1993.
- [5] E.F. Deprettere and A.J. van der Veen, eds., *Algorithms and Parallel VLSI Architectures*, vol. A and B. Elsevier, 1991.
- [6] A.J. van der Veen and M.A.J. Bloemendaal, eds., *IEEE Proceedings Symposium on Computer Architecture & Real Time Graphics*. Delft, The Netherlands: TU Delft, 1989.

Patents

- [7] P. Dewilde, A.J. van der Veen, and L. Tong, “Communicatiesysteem voor draadloze communicatie met behulp van aperiodieke codes,” Mar. 2002. Nederlandse octrooiaanvraag 1020215.
- [8] A.J. Boonstra and A.J. van der Veen, “Calibration method, device, and computer program,” Aug. 2002. Nederlandse octrooiaanvraag.

Journal articles

- [9] A.J. van der Veen and J.C. Principe, “Trends Expert Overview Sessions Revived at ICASSP 2011 (In the Spotlight),” *IEEE Signal Processing Magazine*, vol. 28, p. 160, September 2011. ISSN: 1053-5888; DOI 10.1109/MSP.2011.941984.
- [10] M.J. Bentum, C.J.M. Verhoeven, A.J. Boonstra, A.J. van der Veen, and E.K.A. Gill, “A novel astronomical application for formation flying small satellites,” *Tijdschrift van het NERG*, vol. 76, no. 1, pp. 8–15, 2011. ISSN 037434853.
- [11] V. Venkateswaran and A.J. van der Veen, “Multichannel Sigma-Delta ADCs with integrated feedback beamformers to cancel interfering communication signals,” *IEEE Tr. Signal Processing*, vol. 59, pp. 2211–2222, May 2011.
- [12] S.J. Wijnholds, S. van der Tol, R. Nijboer, and A.J. van der Veen, “Calibration Challenges for the Next Generation of Radio Telescopes,” *IEEE Signal Processing Magazine*, vol. 27, pp. 32–42, January 2010.
- [13] A. Leshem, F. Kamalabadi, E.E. Kuruoglu, and A.J. van der Veen, “Astronomy and cosmology [From the Guest editors],” *IEEE Signal Processing Magazine*, vol. 27, p. 13, January 2010.
- [14] J. Louveaux and A.J. van der Veen, “Adaptive precoding for downstream crosstalk precancellation in DSL systems using sign-error feedback,” *IEEE Transactions on Signal Processing*, vol. 58, pp. 3173–3179, June 2010.
- [15] V. Venkateswaran and A.J. van der Veen, “Analog beamforming in MIMO communications with phase shift networks and online channel estimation,” *IEEE Tr. Signal Processing*, vol. 58, pp. 4131–4143, August 2010.
- [16] A. Amar, A. Leshem, and A.J. van der Veen, “A Low Complexity Blind Estimator Of Narrowband Polynomial Phase Signals,” *IEEE Tr. Signal Processing*, vol. 58, pp. 4674–4683, September 2010.
- [17] Yiyin Wang, G. Leus, and A.J. van der Veen, “Digital receiver design for transmitted-reference ultra-wideband systems,” *Eurasip J. Wireless Comm. Netw.*, vol. 2009, p. 17, June 2009. ArticleID 315264, doi:10.1155/2009/315264.

- [18] S.J. Wijnholds and A.J. van der Veen, "Multisource self-calibration for sensor arrays," *IEEE Tr. Signal Processing*, vol. 57, pp. 3512–3522, September 2009.
- [19] Youngchul Sung, Yirang Lim, Lang Tong, and A.J. van der Veen, "Signal processing advances for 3G WCDMA: From rake receivers to blind techniques," *IEEE Communications Magazine*, vol. 47, pp. 48–54, January 2009. ISSN 0163-6804, DOI 10.1109/MCOM.2009.4752676.
- [20] A. Leshem and A.J. van der Veen, "Blind Source Separation: The Location of Local Minima in the Case of Finitely Many Samples," *IEEE Tr. Signal Processing*, vol. 56, pp. 4340–4353, September 2008. ISSN 1053-587X.
- [21] S. Wijnholds and A.J. van der Veen, "Fundamental imaging limits of radio telescope arrays," *IEEE J. Sel. Topics in Signal Processing*, vol. 2, pp. 613–623, October 2008. ISSN 1932-4553.
- [22] A.J. van der Veen, "A message from the outgoing Editor-in-Chief," *IEEE Tr. Signal Proc.*, vol. 56, pp. 5745–5745, December 2008. ISSN 1053-587X.
- [23] A. Leshem, J. Christou, B. Jeffs, E. Kuruoglu, and A.J. van der Veen, "Introduction to the special issue on signal processing for space research and radio astronomy," *IEEE J. Sel. Topics in Signal Processing*, vol. 2, pp. 609–612, October 2008.
- [24] Q.H. Dang and A.J. van der Veen, "A Decorrelating Multiuser Receiver for Transmit-Reference UWB Systems," *IEEE J. Sel. Topics in Signal Processing*, vol. 1, pp. 431–442, October 2007.
- [25] B. Sadler, D. Goeckel, M.L. Honig, A.J. van der Veen, and Z. Xu, "Introduction to the Issue on Performance Limits of Ultra-Wideband Systems," *IEEE J. Sel. Topics in Signal Processing*, vol. 1, pp. 337–339, October 2007.
- [26] S. van der Tol, B. Jeffs, and A.J. van der Veen, "Self Calibration for the LOFAR Radio Astronomical Array," *IEEE Tr. Signal Processing*, vol. 55, pp. 4497–4510, September 2007. ISSN 1053-587X. DOI 10.1109/TSP.2007.896243.
- [27] A.J. van der Veen, "2006 Best Paper Award Recipients: A message from the Editor-in-Chief," *IEEE Tr. Signal Proc.*, vol. 55, pp. 2373–2374, June 2007. ISSN 1053-587X. DOI 10.1109/TSP.2007.896841.
- [28] N. Petrochilos and A.J. van der Veen, "Algebraic Algorithms to Separate Overlapping Secondary Surveillance Radar Replies," *IEEE Tr. Signal Proc.*, vol. 55, pp. 3746–3759, July 2007. ISSN 1053-587X. DOI 10.1109/TSP.2007.894248.
- [29] R. Djapic, G. Leus, A.J. van der Veen, and A. Trindade, "Blind synchronization in asynchronous ultra wideband (UWB) networks based on the transmit-reference scheme," *EURASIP J. Wireless Comm. Netw.*, December 2006. DOI: 10.1155/WCN/2006/37952.
- [30] Q.H. Dang, A. Trindade, A.J. van der Veen, and G. Leus, "Signal model and receiver algorithms for a transmit-reference ultra-wideband communication system," *IEEE J. Selected Areas in Communications*, vol. 24, pp. 773–779, April 2006.
- [31] J. Louveaux and A.J. van der Veen, "Error-sign feedback as an alternative to pilots for the tracking of FEXT transfer functions in downstream VDSL," *EURASIP J. Applied Signal Proc.*, vol. 2006, p. 14 pages, 2006. DOI 10.1155/ASP/2006/94105.
- [32] A.J. van der Veen, "A message from the incoming Editor-in-Chief," *IEEE Tr. Signal Processing*, vol. 54, p. 1574, May 2006. ISSN 1053-587X.
- [33] J. Louveaux and A.J. van der Veen, "Adaptive DSL crosstalk precancellation design using low rate feedback from end users," *IEEE Signal Processing Letters*, vol. 11, pp. 665–668, November 2006.
- [34] S.J. Wijnholds and A.J. van der Veen, "Effects of Parametric Constraints on the CRLB in Gain and Phase Estimation Problems," *IEEE Signal Processing Letters*, vol. 13, pp. 620–623, October 2006.
- [35] A.J. van der Veen, "2005 Best Paper Award Recipients: A message from the Editor-in-Chief," *IEEE Tr. Signal Proc.*, vol. 54, pp. 2469–2470, July 2006. ISSN 1053-587X.

- [36] S. Chandrasekaran, P. Dewilde, M. Gu, T. Pals, X. Sun, A.J. van der Veen, and D. White, "Some fast algorithms for sequentially semiseparable representations," *SIAM Journal on Matrix Analysis and Applications*, vol. 27, no. 2, pp. 341–364, 2005.
- [37] S. van der Tol and A.J. van der Veen, "Performance Analysis of Spatial Filtering of RF Interference in Radio Astronomy," *IEEE Tr. Signal Proc.*, vol. 53, pp. 896–910, March 2005.
- [38] R. Djapic, A.J. van der Veen, and L. Tong, "Synchronization and packet separation in wireless ad hoc networks by Known Modulus Algorithms," *IEEE J. Spec. Areas in Comm.*, vol. 23, pp. 51–64, January 2005.
- [39] A.J. van der Veen, A. Leshem, and A.J. Boonstra, "Array signal processing for radio astronomy," *Experimental Astronomy (EXPA)*, vol. 17, no. 1-3, pp. 231–249, 2004. ISSN 0922-6435.
- [40] H.Q. Dang and A.J. van der Veen, "A low-complexity blind multi-user receiver for Long-Code WCDMA," *Eurasip J. Wireless Comm. Netw.*, vol. 2004, pp. 113–122, August 2004.
- [41] A.J. van der Veen, "Editorial," *IEEE Signal Processing Letters*, vol. 11, pp. 65–66, February 2004.
- [42] A. Leshem, N. Petrochilos, and A.J. van der Veen, "Finite sample identifiability of multiple constant modulus sources," *IEEE Tr. Information Theory*, vol. 49, pp. 2314–2319, September 2003.
- [43] A.J. Boonstra and A.J. van der Veen, "Gain calibration methods for radio telescope arrays," *IEEE Tr. Signal Processing*, vol. 51, pp. 25–38, January 2003.
- [44] Lang Tong, Alle-Jan van der Veen, Patrick Dewilde, and Youngchul Sung, "Blind Decorrelating RAKE Receivers for Long-Code WCDMA," *IEEE Tr. Signal Processing*, vol. 51, pp. 1642–1655, June 2003.
- [45] A.N. Lemma, A.J. van der Veen, and E.F. Deprettere, "Analysis of Joint Angle-Frequency Estimation using ESPRIT," *IEEE Tr. Signal Proc.*, vol. 51, pp. 1264–1283, May 2003.
- [46] A.J. van der Veen, "Statistical performance analysis of the Algebraic Constant Modulus Algorithm," *IEEE Trans. Signal Processing*, vol. 50, pp. 3083–3097, December 2002.
- [47] J. Raza, A.J. Boonstra, and A.J. van der Veen, "Spatial Filtering of RF Interference in Radio Astronomy," *IEEE Signal Processing Letters*, vol. 9, pp. 64–67, February 2002.
- [48] V. Poor, A.J. van der Veen, and G.W. Wornell, "Special issue on Signal processing for Multiuser Wireless Communications," *Journal of Communications and Networks*, vol. 3, pp. 193–195, September 2001.
- [49] A. Leshem and A.J. van der Veen, "Multichannel detection of Gaussian signals with uncalibrated receivers," *IEEE Signal Processing Letters*, vol. 8, pp. 120–122, April 2001.
- [50] A.J. van der Veen, "Asymptotic properties of the Algebraic Constant Modulus Algorithm," *IEEE Trans. Signal Processing*, vol. 49, pp. 1796–1807, August 2001.
- [51] A. Leshem, A.J. van der Veen, and A.J. Boonstra, "Multichannel interference mitigation techniques in radio astronomy," *Astrophysical Journal Supplements*, vol. 131, pp. 355–374, November 2000.
- [52] P. Dewilde and A.J. van der Veen, "Inner-outer factorization and the inversion of locally finite systems of equations," *Linear Algebra Appl.*, vol. 313, pp. 53–100, July 2000.
- [53] A. Leshem and A.J. van der Veen, "Radio Astronomical Imaging in the Presence of Strong Radio Interference," *IEEE Tr. Information Th.*, vol. 46, pp. 1730–1747, August 2000.
- [54] A. Lemma, A.J. van der Veen, and E.F. Deprettere, "Multiresolution ESPRIT algorithm," *IEEE Tr. Signal Proc.*, vol. 47, pp. 1722–1726, June 1999.
- [55] A.J. van der Veen, "Blind separation of BPSK sources with residual carriers," *Signal Processing*, vol. 73, pp. 67–79, January 1999.

- [56] D. Gesbert, A.J. van der Veen, and A. Paulraj, "On the equivalence of blind equalizers based on MRE and subspace intersections," *IEEE Tr. Signal Proc.*, vol. 47, pp. 856–859, March 1999.
- [57] A. Leshem and A.J. van der Veen, "Direction of Arrival Estimation for Constant Modulus Signals," *IEEE Tr. Signal Proc.*, vol. 47, pp. 3125–3129, November 1999.
- [58] A.J. van der Veen, M.C. Vanderveen, and A. Paulraj, "Joint angle and delay estimation using shift-invariance techniques," *IEEE Tr. Signal Processing*, vol. 46, pp. 405–418, February 1998.
- [59] M.C. Vanderveen, A.J. van der Veen, and A. Paulraj, "Estimation of multipath parameters in wireless communications," *IEEE Tr. Signal Processing*, vol. 46, pp. 682–690, March 1998.
- [60] A.J. van der Veen, "Algebraic methods for deterministic blind beamforming," *Proceedings of the IEEE*, vol. 86, pp. 1987–2008, October 1998.
- [61] A.J. van der Veen, M.C. Vanderveen, and A. Paulraj, "Joint angle and delay estimation using shift-invariance properties," *IEEE Signal Processing Letters*, vol. 4, pp. 142–145, May 1997.
- [62] A.J. van der Veen, "Analytical Method for Blind Binary Signal Separation," *IEEE Trans. Signal Processing*, vol. 45, pp. 1078–1082, April 1997.
- [63] A.J. van der Veen, S. Talwar, and A. Paulraj, "A Subspace Approach to Blind Space-Time Signal Processing for Wireless Communication Systems," *IEEE Trans. Signal Processing*, vol. 45, pp. 173–190, January 1997.
- [64] A.J. van der Veen and A. Paulraj, "An Analytical Constant Modulus Algorithm," *IEEE Trans. Signal Processing*, vol. 44, pp. 1136–1155, May 1996.
- [65] J. G"otze and A.J. van der Veen, "On-line Subspace Estimation using a Schur-type Method," *IEEE Trans. Signal Processing*, vol. 44, pp. 1585–1589, June 1996.
- [66] A.J. van der Veen, "A Schur Method for Low-rank Matrix Approximation," *SIAM J. Matrix Anal. Appl.*, vol. 17, pp. 139–160, January 1996.
- [67] A.J. van der Veen, S. Talwar, and A. Paulraj, "Blind Estimation of Multiple Digital Signals Transmitted over FIR Channels," *IEEE Signal Processing Letters*, vol. 2, pp. 99–102, May 1995.
- [68] A.J. van der Veen, "Time-varying lossless systems and the inversion of large structured matrices," *Archiv f. Elektronik u. "Ubertragungstechnik*, vol. 49, pp. 372–382, September 1995.
- [69] A.J. van der Veen and P.M. Dewilde, "Embedding of Time-Varying Contractive Systems in Lossless Realizations," *Math. Control Signals Systems*, vol. 7, pp. 306–330, 1994.
- [70] A.J. van der Veen and P.M. Dewilde, "On Low-Complexity Approximation of Matrices," *Linear Algebra and its Applications*, vol. 205–206, pp. 1145–1201, July 1994.
- [71] A.J. van der Veen and P.M. Dewilde, "Modeling Computational Networks by Time-varying Systems," *Integration, the VLSI Journal*, vol. 16, pp. 267–291, December 1993.
- [72] P. Dewilde and A.J. van der Veen, "On the Hankel-Norm Approximation of Upper-Triangular Operators and Matrices," *Integral Equations and Operator Theory*, vol. 17, no. 1, pp. 1–45, 1993.
- [73] A.J. van der Veen, E.F. Deprettere, and A.L. Swindlehurst, "Subspace Based Signal Analysis using Singular Value Decomposition," *Proceedings of the IEEE*, vol. 81, pp. 1277–1308, September 1993.
- [74] A.J. van der Veen, P.B. Ober, and E.F. Deprettere, "Azimuth and Elevation Computation in High Resolution DOA Estimation," *IEEE Trans. Signal Processing*, vol. 40, pp. 1828–1832, July 1992.
- [75] A.J. van der Veen and Ed. F. Deprettere, "Parallel VLSI Matrix Pencil Algorithm for High Resolution Direction Finding," *IEEE Trans. Signal Processing*, vol. 39, pp. 383–394, February 1991.

Chapters in books

- [76] A.J. van der Veen and G. Leus, “Transmit Reference UWB Systems,” in *Short Range Wireless Communication: Emerging Technologies and Applications* (R. Kraemer and M. Katz, eds.), ch. 6, pp. 53–56, Wiley, 2009. ISBN 0470699957, 9780470699959.
- [77] A.J. van der Veen, A. Leshem, and A.J. Boonstra, “Array signal processing for radio astronomy,” in *The Square Kilometre Array: An Engineering Perspective* (P.J. Hall, ed.), pp. 231–249, Dordrecht: Springer, 2005. ISBN 1-4020-3797-x. Reprinted from *Experimental Astronomy*, 17(1-3),2004.
- [78] G. Leus and A.J. van der Veen, “Channel Estimation,” in *Smart Antennas—State of the art* (T. Kaiser e.a., ed.), ch. 15, pp. 293–320, EURASIP book series, Hindawi, 2005. ISBN: 977-5945-09-7.
- [79] A.J. van der Veen and A. Leshem, “Constant Modulus Beamforming,” in *Robust Adaptive Beamforming* (J. Li and P. Stoica, eds.), ch. 6, pp. 299–351, Wiley Interscience, 2005.
- [80] A.J. van der Veen, “Algebraic Constant Modulus Algorithms,” in *Signal Processing Advances in Wireless and Mobile Communications* (G. Giannakis e.a., ed.), vol. 2, ch. 3, Prentice Hall, 2000.
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