

# Information Theory in the Benelux:

## An overview of WIC symposia

### 1980 – 2003

R.L. Lagendijk, L.M.G.M. Tolhuizen, P.H.N. de With, Eds.

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# Preface

A symposium on “Information Theory in the Benelux” was organized in Zoetermeer, in 1980. This symposium effectively signifies the informal naissance of the “Werkgemeenschap voor Information en Communicatietheorie” (WIC) – literally translated as “Working Community for Information and Communication Theory”. Since 1980, the WIC Information Theory Symposium has become an annual event. The official start of the community originates from February 1984, and the subsequent formal community declaration was established in May 1986. Prof. Boxma (TU Delft), Prof. Gröneveld (Univ. Twente), Prof. Schalkwijk (TU Eindhoven) and Prof. Van der Meulen (K.U. Leuven) are considered the founding fathers of the WIC community, secretarially supported by Dr. Best (Univ. Twente) in the board. Boxma, Gröneveld, and Schalkwijk are honored members of the WIC community; Van der Meulen is still an active member of the WIC board.

The purpose of the WIC – as stated in its Charter, see <http://www.w-i-c.org> – was and still is, first, to coordinate and stimulate the work of professionals in the field of Information and Communication Theory in the Benelux, and second, to further the application of Information and Communication Theory. The community has always stimulated the active involvement of students, for instance by presenting their research results at the WIC’s Information Theory Symposia.

Now, 25 years later, in 2004, these principles for WIC symposia still hold and the WIC board is proud to present its 25<sup>th</sup> symposium to the scientific community. Over the years, the WIC has proven to be relatively small yet active, very much alive and eager to continue communication and exchange of scientific results. The WIC symposium is organized annually as a two-day event and usually takes place at the end of May, and attracts around 50 Information Theory scientists. The symposium is organized without large sponsors and is self-financing, with a relatively low entrance fee to enable students to join the symposia activities.

The 25 WIC symposia reflect the cooperation between the three technical universities in the Netherlands, K.U. Leuven and UCL in Belgium, and Philips Research in Eindhoven. The symposium organization has been rotating between these institutes. Other universities and institutes inside and outside the Benelux have also made significant scientific contributions to the symposia.

The WIC also organizes a midwinter meeting in January. This meeting is a one-day event with tutorials concentrating on a particular theme in information and communication theory and techniques. The event aims at introducing the audience to new developments in specialized fields. This midwinter meeting usually takes place in Eindhoven, because of the large potential technical audience and central location in the Benelux. The meeting attracts between 70 and 150 attendees, and as such has established itself as an important activity of the WIC.

We can safely state that the WIC symposia constitute *the* Benelux forum for the exchange and the in-depth discussion of technical results between Information and Communication Theory specialists. The results presented at the symposia either in oral or poster form, are accompanied by 8-page papers published as the WIC symposia proceedings. This jubilee book summarizes the past 24 WIC symposia and provides an overview of technical results and developments presented at the symposia. The eight chapters have been chosen such that they address particular areas and all cover a reasonable amount of papers. The chapters authors have been invited by the editors to contribute to this jubilee book. In addition to compact reflections on the progress in field, each chapter briefly discusses all published related papers of the past symposia. This jubilee book is therefore not only interesting to read, but we believe that it is also a pleasure to find back the names of the scientists that have contributed to the progress of Information and Communication Theory in the Benelux.

The editors wish to thank all contributors to this book. First, we thank the authors of the chapters, who studied all papers in their category, classified them and provided summaries and related the results to overall developments. Second, we acknowledge Philips Electronics for sponsoring the printing of this book. As the WIC community does not charge a membership fee, only such a sponsorship enables us to carry out a project like this jubilee book. Third, the editors are grateful to Yannick Morvan for the cover design processing, and to Mirjam Nieman for the editorial corrections.

Finally, we would like to say words of appreciation to all authors of the paper published at WIC symposia in the past 25 years. Without any doubt, it were the members of the WIC who have kept the community alive and provided this rich scientific history of Information and Communication Theory and its applications. It was a pleasure to co-author and edit this jubilee book; we hope it will give you the same enjoyment.

Eindhoven, The Netherlands, May 12, 2004.

The editors,

Prof.dr.ir. Reginald L. Lagendijk,  
Dr.ir. Ludo M.G.M. Tolhuizen, present WIC secretary,  
Prof.dr.ir. Peter H.N. de With, present WIC chairman.



# References

- [1] Fisher, R.A., *Theory of Statistical Estimation*, Proc. Cambridge Phil. Society 22, pp. 700–725, 1925.
- [2] Kac, M., *On the Notion of Recurrence in Discrete Stochastic Processes*, Bull. Amer. Math. Soc., vol. 53, pp. 1002 - 1010, Oct. 1947.
- [3] Shannon, C.E., *A Mathematical Theory of Communication*, Bell Syst. Tech. J. 27(3,4), pp. 379–423 and 623–656, 1948.
- [4] Shannon, C.E., *Communication in the Presence of Noise*, Proc. IRE 37(1), pp. 10–21, 1949.
- [5] Shannon, C.E., *Communication Theory of Secrecy Systems*, Bell Syst. Techn. J. 28(4), pp. 656–715, 1949.
- [6] Shannon, C.E., *Prediction and Entropy of Printed English*, Bell Syst. Techn. J. 30(1), pp. 50–64, 1951.
- [7] Huffman, D.A., *A Method for the Construction of Minimum-Redundancy Codes*, Proc. IRE, vol 40, pp. 1098–1101, Sept. 1952
- [8] McMillan, B., *The Basic Theorems of Information Theory*, Ann. Math. Stat. 24, pp. 96–219, 1953.
- [9] Elias, P., *Error-Free Coding*, IRE Trans. Inform. Theory, pp. 29–37, 1954.
- [10] Shannon, C.E., *The Zero-error Capacity of a Noisy Channel*, IRE Trans. Inform. Th. pp. 8–19, 1956.
- [11] Khinchin, A.Ya., *Mathematical Foundations of Information Theory*, Dover Publ., New York, 1957.
- [12] Shannon, C.E., *Channels with Side Information at the Transmitter*, IBM J. Res. Devel. 2, pp. 289–293, 1958.
- [13] Pinsker, M.S., *Information and Information Stability of Random Variables and Processes*, Izd. Akad. Nauk, 1960.
- [14] Shannon, C.E., *Two-way Communication Channels*, Proc. 4th Berkeley Symp. Math. Stat. & Prob. 1, pp. 611–644, 1961.
- [15] Gallager, R.G., *Low-Density Parity-Check Codes*, MIT Press, Cambridge, MA, USA, 1963.
- [16] Berkoff, M., *Waveform Compression in NRZI Magnetic Recording*, Proceedings IEEE, vol. 52, pp. 1271–1272, Oct. 1964.
- [17] Forney, G.D., *Generalized Minimum Distance Decoding*, IEEE Trans. Inform. Theory, vol. 12, pp. 125–131, April 1966.
- [18] Forney, G.D., *Concatenated Codes*, MIT Press, 1966.

- [19] Tunstall, B.P., *Synthesis of Noiseless Compression Codes*, Ph.D. dissertation, Georgia Inst. Tech., Atlanta, GA, Sept. 1967.
- [20] Jelinek, F., *Buffer Overflow in Variable Length Coding of Fixed Rate Sources*, IEEE Trans. Inform. Theory, vol 14, pp. 490–501, May 1968.
- [21] Abramson, N., *The ALOHA System – Another Alternative for Computer Communications*, AFIPS Conf. Proc., Fall Joint Computer Conf. 37, pp. 281–285, 1970.
- [22] Chien, T.M., *Upper Bound on the Efficiency of Dc-constrained Codes*, Bell Syst. Tech. J. vol. 49, pp. 2267–2287, Nov. 1970.
- [23] Tang, D.T. and L.R. Bahl, *Block Codes for a Class of Constrained Noiseless Channels*, Information and Control, vol. 17, pp. 436–461, 1970.
- [24] Berger, T., *Rate Distortion Theory*, Prentice-Hall, Englewood Cliffs, NJ, 1971.
- [25] Meulen, E.C. van der, *Three-terminal communication channels*, Advances in Applied Probability 3(1), pp. 120–154, 1971.
- [26] Schalkwijk, J.P.M., *A Class of Simple and Optimal Strategies for Block Coding on the Binary Symmetric Channel with Noiseless Feedback*, IEEE Trans. Inform. Theory, vol. 17, pp. 283–287, May 1971.
- [27] Cover, T.M., *Broadcast Channels*, IEEE Trans. Inform. Theory, vol. 18, pp. 2–14, Jan. 1972.
- [28] Chase, D., *A Class of Algorithms for Decoding Block Codes with Channel Measurement Information*, IEEE Trans. Inform. Theory, vol. 18, pp. 170–182, Jan. 1972.
- [29] Schalkwijk, J.P.M., *An Algorithm for Source Coding*, IEEE Trans. Inform. Theory, vol. 18, pp. 395–399, May 1972.
- [30] Bell, D.E., LaPadula, L.J., *Secure Computer Systems: Mathematical Foundations*, ESD-TR-73-278, vol. 1-2, ESD/AFSC, Hanscom AFB, Bedford, MA, 1973.
- [31] Cover, T.M., *Enumerative Source Coding*, IEEE Trans. Inform. Theory, vol. 19, pp. 73–76, Jan. 1973.
- [32] Slepian D. and J.K. Wolf, *A Coding Theorem for Multiple Access Channels with Correlated Sources*, Bell Syst. Tech. J. 52, pp. 1036–1076, 1973.
- [33] Varshamov, R.R., *A Class of Codes for Asymmetric Channels and a Problem from the Additive Theory of Numbers*, IEEE Trans. Inform. Theory, pp. 92–95, vol. 19, Jan. 1973.
- [34] Bahl, L.R., J. Cooke, F. Jelinek, and J. Raviv, *Optimal Decoding of Linear Codes for Minimizing Symbol Error Rate*, IEEE Trans. Inform. Theory, vol. 20, pp. 284–287, March 1974.
- [35] Kuznetsov, A.V. and B.S. Tsybakov, *Coding for Memories with Defective Cells*, Problemy Peredachi Informatsii 10(2), pp. 52–60, 1974.
- [36] Geçkinli, N.C., *Two Corollaries to the Huffman Procedure*, IEEE Trans. Inform. Theory, vol. 21, pp. 342–344, May 1975.
- [37] Wyner, A.D., *The Wire-tap Channel*, Bell Syst. Tech. J., vol. 54, no. 8, pp. 1355–1387, 1975.
- [38] Knapp, C.H. and C.G. Carter, *The Generalized Correlation Method for Estimation of Time Delay*, IEEE Trans. on Acoustics, Speech and Signal Processing, vol. 24, pp. 320–327, 1976.
- [39] Wyner D. and J. Ziv, *The Rate-Distortion Function for Source Coding with Side Information at the Decoder*, IEEE Trans. on Inform. Theory, vol. 22, pp. 1–10, Jan. 1976.
- [40] Diffie, W. and M.E. Hellman, *New Directions in Cryptography*, IEEE Trans. Inform. Theory, vol. 22, pp. 644–654, Nov. 1976.

- [41] Lawrence, J.C., *A New Universal Coding Scheme for the Binary Memoryless Source*, IEEE Trans. Inform. Theory, vol. 23, pp. 466 - 472, July 1977.
- [42] MacWilliams, F.J. and N.J.A. Sloane, *The Theory of Error-Correcting Codes*, North-Holland, 1977.
- [43] McEliece, R.J., *The Theory of Information and Coding*, Addison-Wesley, Reading, MA, 1977.
- [44] Shirayev, A.N., *Optimal Stopping Rules*, Springer-Verlag, New York, 1977.
- [45] Berlekamp, E.R., R.J. McEliece, and H.C.A. van Tilborg, *On the Inherent Intractability of Certain Coding Problems*, IEEE Trans. Inform. Theory, vol. 24, pp. 384–386, May 1978.
- [46] Koshelev, V.N., *Multilevel Source Coding and Data Transmission Theorem*, in Proc. VII All-Union Conference on Coding Theory and Data Transmission, part I, pp. 85–92, Vilnius, 1978.
- [47] McEliece, R.J., *A Public-key Cryptosystem based on Algebraic Coding Theory*, JPL DSN Progress Report 42–44, pp. 114–116, Jan–Febr. 1978.
- [48] Merkle, R.C. and M.E. Hellman, *Hiding Information and Signatures in Trapdoor Knapsacks*, IEEE Trans. Inform. Theory, vol. 24, pp. 525–530, Sept. 1978.
- [49] Rivest, R.L., A. Shamir, and L. Adleman, *A Method for Obtaining Digital Signatures and Public Key Cryptosystems*, Comm. ACM, vol. 21, pp. 120–126, Febr. 1978.
- [50] Garey, M.R. and D.S. Johnson, *Computers and Intractability: A Guide to the Theory of NP–Completeness*, W.H. Freeman and Co., San Fransisco, 1979.
- [51] Shamir, A., *How to share a secret*, Comm. ACM, vol. 22, pp. 612-613, 1979.
- [52] El Gamal, A.A. and T.M. Cover, *Multiple User Information Theory*, Proc. IEEE 68(12), pp. 1466–1483, 1980.
- [53] Guazzo, M., *A General, Minimum-Redundancy Source-Coding Algorithm*, IEEE Trans. Inform. Theory, vol. 26, Jan. 1980, pp. 15–25.
- [54] Hellman, M., *A Cryptanalytic Time-Memory Tradeoff*, IEEE Trans. Inform. Theory, vol. 26, pp. 401–406, 1980.
- [55] Csiszár, I. and J. Körner, *Information Theory: Coding Theorems for Discrete Memoryless Systems*, Akadémiai Kiadó, Budapest, 1981.
- [56] Gersho, A. and B. Ramamurthi, *Image Coding Using Vector Quantization*, Proc. IEEE Int. Conf. Acoust., Speech, Signal Processing, pp. 428-431, 1982.
- [57] Krichevsky, R.E. and V.K. Trofimov, *The Performance of Universal Encoding*, IEEE Trans. Inform. Theory, vol. 27, pp. 199-207, March 1981.
- [58] Shamir, A., *A Polynomial Time Algorithm for Breaking the Basic Merkle–Hellman Cryptosystem*, Proc. 23rd IEEE Symp. Found. Computer Sci., pp. 145–152, 1982.
- [59] Ungerboeck, G., *Channel Coding with Multilevel/Phase Signals*, IEEE Trans. Inform. Theory, vol. 28, pp. 55–67, Jan. 1982.
- [60] Beenker, G.F.M. and K.A.S. Immink, *A Generalized Method for Encoding and Decoding Runlength-Limited Binary Sequences*, IEEE Trans. Inform. Theory, vol. 29, no. 5, pp. 751-754, Sept. 1983.
- [61] Berger, T. and Z. Zhang, *Minimum Breakdown Degradation of Binary Source Encoding*, IEEE Trans. Inform. Theory, vol. 29, pp. 807–814, Nov. 1983.
- [62] Blahut, R.E., *Theory and Practice of Error-control Codes*, Addison-Wesley, 1983.
- [63] Costa, M. H. M. .*Writing on Dirty Paper*, IEEE Trans. Inform. Theory, vol. 29, pp. 439–441, May 1983.
- [64] Lagarias, J.C. and A.M. Odlyzko, *Solving Low-Density Subset Problems*, Proc. 24th Annual IEEE Symp. on Found. of Comp. Science, pp. 1–10, 1983.

- [65] Ferguson, T.J. and J.H. Rabinowitz, *Self-synchronizing Huffman codes*, IEEE Trans. Inform. Theory, vol. 30, pp. 687–693, July 1984.
- [66] Gray, R., *Vector Quantization*, IEEE Acoustics, Speech and Signal Processing Magazine, pp. 4–29, April 1984.
- [67] Rissanen, J., *Universal Coding, Information, Prediction, and Estimation*, IEEE Trans. Inform. Theory, vol. 30, pp. 629–636, July 1984.
- [68] Bouwhuis, G., J. Braat, A. Huijser, J. Pasman, G. van Rosmalen, and K.A.S. Immink, *Principles of Optical Disc Systems*, Adam Hilger Ltd, 1985.
- [69] Ahlswede R. and I. Csiszár, *Hypothesis Testing with Communication Constraints*, IEEE Trans. Inform. Theory, vol. 32, pp. 533–542, July 1986.
- [70] Montgomery, B.L. and J. Abrahams, *Synchronization of Binary Source Codes*, IEEE Trans. Inform. Theory, vol. 32, pp. 849–854, Nov 1986.
- [71] Bertsekas D. and R. Gallager, *Data Networks*, Prentice Hall 1987.
- [72] Barron, A.R., *The Convergence in Information of Probability Density Estimators*, IEEE Int. Symp. Inform. Theory, Kobe, Japan, June 19–24, 1988.
- [73] Guillou, L.C. and J.-J. Quisquater, A “Paradoxical” Identity-based Signature Scheme Resulting from Zero-knowledge, Advances in Cryptology, Proc. of CRYPTO’88 (Ed. S. Goldwasser), LNCS 403, Springer Verlag, 1988.
- [74] Lee E.A. and D.G. Messerschmitt, *Digital Communication*, Kluwer Academic Publishers, 1988.
- [75] Ahlswede, R. and G. Dueck, *Identification via Channels*, IEEE Trans. Inform. Theory, vol. 35, pp. 15–29, 1989.
- [76] Bassalygo, L.A., S.I. Gelfand, and M.S. Pinsker, *Coding for Channels With Localized Errors*, Proc. 4-th Joint Swedish-Soviet Int. Workshop on Information Theory, Gotland, Sweden, pp. 85–89, August 1989.
- [77] Quinlan, J.R. and R.L. Rivest, *Inferring Decision Trees Using the Minimum Description Length Principle*, Inform. and Comput., vol. 80, pp. 227–248, 1989.
- [78] Ahlswede, R., J.P. Ye, and Z. Zhang, *Creating Order in Sequence Spaces with Simple Machines*, Information and Computation, vol. 89, pp. 47–94, 1990.
- [79] Biemond, J., R.L. Lagendijk and R.M. Mersereau, *Iterative Methods for Image Deblurring*, Proc. IEEE, vol. 8, no. 5, pp. 856–883, 1990.
- [80] Bingham, J.A.C., *Multicarrier Modulation for Data Transmission: An Idea whose Time has Come*, IEEE Communications Magazine, vol. 28, pp. 7–15, May 1990.
- [81] Lagendijk, R.L., J. Biemond and D.E. Boekee, *Identification and Restoration of Noisy Blurred Images Using the Expectation-Maximization Algorithm*, IEEE Trans. Acoustics, Speech and Signal Processing, vol. 38, no. 7, pp. 1180–1191, 1990.
- [82] Wiener, M.J., *Cryptanalysis of Short RSA Secret Exponents*, IEEE Trans. Inform. Theory, vol. 36, pp. 553–558, May 1990.
- [83] Biglieri, E., D. Divsalar, P. McLane, and M. Simon, *Introduction to Trellis-Coded Modulation with Applications*, Maxwell-Macmillan, 1991.
- [84] Cover, T.M. and J.A. Thomas, *Elements of Information Theory*, Wiley series in telecommunication, J. Wiley & Sons, New York, 1991.
- [85] Equitz, W.H.R. and T.M. Cover, *Successive Refinement of Information*, IEEE Trans. Inform. Theory, vol. 37, pp. 268–275, 1991.
- [86] Immink, K.A.S, *Coding Techniques for Digital Recorders*, Prentice Hall, 1991.
- [87] Barron, A.R., L. Györfi, and E.C. van der Meulen, *Distribution Estimation Consistent in Total Variation and in Two Types of Information Divergence*, IEEE Trans. Inform. Theory, vol. 38, pp. 1437 - 1454, Sept. 1992.

- [88] Gitlin, R.D., J.F. Hayes, and S.B. Weinstein, *Data Communication Principles*, Plenum Press, 1992.
- [89] Alabbadi, M. and S.B. Wicker, *Digital Signature Schemes based on Error-correcting Codes*, IEEE Int. Symp. Inform. Theory, San Antonio, p. 199, 1993.
- [90] Berrou, C., A. Glavieux, and P. Thitimajshima, *Near Shannon Limit Error-Correcting Coding and Decoding: Turbo Codes*, Proceedings IEEE ICC, Geneva, Switzerland, pp. 1064–1070, May 1993.
- [91] Maurer, U., *Secret Key Agreement by Public Discussion*, IEEE Trans. Inform. Theory, vol. 39, pp. 733–742, May 1993.
- [92] Pennebaker, W.B. and J.L. Mitchell, *JPEG Still Image Compression Standard*, Van Nostrand Reinhold, New York, 1993.
- [93] Wyner, A.D., J. Ziv, *The Sliding-window Lempel-Ziv Algorithm is Asymptotically Optimal*, Proc. IEEE, vol. 82, pp. 872–877, June 1994.
- [94] Best, M.R., M.V. Burnashev, Y. Lévy, A. Rabinovich, and P.C. Fishburn, *On a Technique to Calculate the Exact Performance of a Convolutional Code*, IEEE Trans. Inform. Theory, vol. 41, pp. 441–447, March 1995.
- [95] Le Floch B., M. Alard, and C. Berrou, *Coded Orthogonal Frequency Division Multiplex*, Proc. IEEE, vol. 83, pp. 587–592, June 1995.
- [96] Willems, F.M.J., Y.M. Shtarkov, and Tj.J. Tjalkens, *The Context-Tree Weighting Method: Basic Properties*, IEEE Trans. Inform. Theory, vol. 41, pp. 653 - 664, May 1995.
- [97] Bergmans, J.W.M., *Digital Baseband Transmission and Recording*, Kluwer, 1996.
- [98] Haskell, B., A. Puri, and A. Netravali, *Digital Video: An Introduction to MPEG-2*, Chapman and Hall, 1996.
- [99] Kocher, P., *Timing Attacks on Implementations of Diffie-Hellman, RSA, DSS and Other Systems*, Advances in Cryptology, Proc. of CRYPTO'96 (Ed. U. Maurer), LNCS 1070, Springer Verlag, 1996.
- [100] Shi, Q., *Digital Modulation Techniques*, Digital Electronics Engineering Handbook, chapter 5. McGraw-Hill, 1996.
- [101] Wilson, S.G., *Digital Modulation and Coding*, Prentice Hall, 1996.
- [102] Menezes, A.J., P.C. van Oorschot, and S.A. Vanstone, *Handbook of Applied Cryptography*, CRC Press, Boca Raton, 1997.
- [103] Pennebaker, W.B., J.L. Mitchell, C. Fogg, and D. LeGall, *MPEG Digital Video Compression Standard*, Chapman and Hall, 1997.
- [104] With, P.H.N. de, and Rijckaert, A.M.A., *Design Considerations of the Video Compression System of the New DV Camcorder Standard*, IEEE Trans. Consum. Electron., Vol 43, No. 4, pp. 1160–1179, 1997.
- [105] Costello, D.J., J. Hagenauer, H. Imai, and S.B. Wicker, *Applications of Error-Control Coding*, IEEE Trans. Inform. Theory, vol. 44, pp. 2531–2560, Oct. 1998.
- [106] Gray, R.M. and D.L. Neuhoff, *Quantization*, IEEE Transactions on Information Theory, vol. 44, pp. 2325–2383, Oct. 1998.
- [107] Immink, K.A.S., P.H. Siegel, and J.K. Wolf, *Codes for Digital Recorders*, IEEE Trans. Inform. Theory vol. 44, pp. 2260–2299, Oct. 1998.
- [108] Pless, V.S. and W.C. Huffman (eds.), *Handbook of Coding Theory*, Vols. 1 and 2, Elsevier, 1998.
- [109] Immink, K.A.S., *Codes for Mass Data Storage Systems*, Shannon Foundation Publishers, Geldrop, Netherlands, 1999.

- [110] Johannesson, R. and K.S. Zigangirov, *Fundamentals of Convolutional Coding*, IEEE Press, 1999.
- [111] Sayood, K., *Introduction to Data Compression*, 2nd. Edition, Academic Press, 2000.
- [112] Proakis, J.G., *Digital Communications*, McGraw-Hill, fourth edition, 2001.
- [113] Pereira, F. and T. Ebrahimi,(eds.), *The MPEG-4 Book*, ISMC Press, 2002.
- [114] Immink, K.A.S., J.Y. Kim, S.W. Suh, and S.K. Ahn, *Extremely Efficient Dc-free RLL codes for Optical Recording*, IEEE Trans. Commun., vol. 51, pp. 326-331, March 2003.

### **WIC Symposium Shannon and Multi-user Information Theory Papers**

- [115] Boekee, D.E., *Informatie Maten, Fundamentele Begrippen en Enkele Toepassingen*, First SITB (Zoetermeer), pp. 29–32, 1980.
- [116] Broekstra, G., *Constraintanalyse: Toepassing van Informatiematen op het Probleem van Structuuridentificatie*, First SITB (Zoetermeer), pp. 39–42, 1980.
- [117] Buffart, H. and Collard, R., *Structural Information Theory of Perception*, First SITB (Zoetermeer), pp. 43–46, 1980.
- [118] Meulen, E.C. van der, *Een Eenvoudig Bewijs, Gebaseerd op Partities en Typicality, van een Coderingstheorema van Marton voor het Discrete Broadcast Kanaal*, First SITB (Zoetermeer), pp. 105–110, 1980.
- [119] Boekee, D.E., *Syntactische Complexiteit en Informatie-Inhoud*, Second SITB (Zoetermeer), pp. 35–40, 1981.
- [120] Lubbe, J.C.A. van der, *Een Vergelijkend Onderzoek naar de Informatiematen van Renyi, Daroczy en Arimoto en de Invloed van hun Parameters*, Second SITB (Zoetermeer), pp. 77–85, 1981.
- [121] Meulen, E.C. van der, *Overzicht van Recente Resultaten op het Gebied van het Multiple Access Kanaal*, Second SITB (Zoetermeer), pp. 87–98, 1981.
- [122] Schalkwijk, J.P.M., *The And-Gate*, Second SITB (Zoetermeer), pp. 103–111, 1981.
- [123] Willems, F.M.J., *Codering en Capaciteitsgebied voor het Binary Erasure Multiple Access Kanaal met Feedback*, Second SITB (Zoetermeer), pp. 123–128, 1981.
- [124] Willems, F.M.J. and E.C. van der Meulen, *Een Verbetering en Veralgemening van het Transmissiegebied van Ozarow voor het Gaussische Broadcast Kanaal met Feedback*, Second SITB (Zoetermeer), pp. 129–138, 1981.
- [125] Collard, R.F.A., *Structural Information Processing: Some Recent Developments*, Third SITB (Zoetermeer), pp. 5–12, 1982.
- [126] Meulen, E.C. van der, *Toetsen voor Uniformiteit Gebaseerd op Entropie*, Third SITB (Zoetermeer), pp. 63–75, 1982.
- [127] Meulen, E.C. van der, *Overzicht van Recente Resultaten op het Gebied van het Broadcast Kanaal*, Third SITB (Zoetermeer), pp. 77–92, 1982.
- [128] Schalkwijk, J.P.M. and Vinck, A.J., *Information Networks — Deterministic Elements*, Third SITB (Zoetermeer), pp. 113–124, 1982.
- [129] Willems, F.M.J., *Het Discrete Geheugenloze Multiple Access Kanaal met Gedeeltelijk Coöpererende Encoders*, Third SITB (Zoetermeer), pp. 157–161, 1982.
- [130] Willems, F.M.J. and E.C. van der Meulen, *Het Discrete Geheugenloze Multiple Access Kanaal met Afkijkende Encoders*, Third SITB (Zoetermeer), pp. 163–170, 1982.
- [131] Coeberg van den Braak, P.A.B.M. and Tilborg, H.C.A. van, *A Set of Uniquely Decodable Codepairs for the 2-Access Binary Adder Channel*, Fourth SITB (Haasrode), pp. 31–38, 1983.

- [132] Lubbe, J.C.A. van der, *Applications of Information Theoretical Concepts in Economics*, Fourth SITB (Haasrode), pp. 137–146, 1983.
- [133] De Bruyn, K., *Good Codeproducers for the Asymmetric Broadcast Channel*, Fourth SITB (Haasrode), pp. 147–154, 1983.
- [134] De Bruyn, K. and E.C. van der Meulen, *Two Codeconstructions for the Asymmetric Multiple Access Channel*, Fourth SITB (Haasrode), pp. 155–162, 1983.
- [135] Post, K.A. and Ligtenberg, L.G.T.M., *Coding Strategies for the Binary Multiplying Channel in the Discrete Case*, Fourth SITB (Haasrode), pp. 163–170, 1983.
- [136] Schalkwijk, J.P.M., Rooyackers, J.E. and Smeets, B.J.M., *Generalized Shannon Strategies for the Binary Multiplying Channel*, Fourth SITB (Haasrode), pp. 171–178, 1983.
- [137] Vinck, A.J., *Constructive Superposition Coding for the Binary Erasure Multiple Access Channel*, Fourth SITB (Haasrode), pp. 179–188, 1983.
- [138] Willems, F.M.J., *Two Results for the Multiple Access Channel with Feedback*, Fourth SITB (Haasrode), p. 189–198, 1983.
- [139] De Bruyn, K., *Fixed Composition List Codes for Discrete Memoryless One-Way Channels: a Packing Lemma and an Iterative Code Construction*, Fifth SITB (Aalten), pp. 36–44, 1984.
- [140] De Bruyn, K. and E.C. van der Meulen, *Feedback Capacity Regions for a Class of Discrete Memoryless Multiple-Access Channels*, Fifth SITB (Aalten), pp. 45–53, 1984.
- [141] Gaal, E.W. and Schalkwijk, J.P.M., *Deterministic Binary Two-Way Channels*, Fifth SITB (Aalten), pp. 54–63, 1984.
- [142] Hekstra, A.P. and Willems, F.M.J., *Capacity Regions for Multiple-Access Channels with Feedback and Two-Way Channels*, Fifth SITB (Aalten), pp. 73–79, 1984.
- [143] Post, K.A., *Construction of a Positive Solution of a Special System of Quadratic Equations*, Fifth SITB (Aalten), pp. 118–122, 1984.
- [144] Schalkwijk, J.P.M., *On the Optimality of Coding Strategies for Deterministic Two-Way Channels*, Fifth SITB (Aalten), pp. 131–136, 1984.
- [145] Smit, G., *Een Toets voor de Orde van een Markov-Keten welke Gebaseerd is op het Begrip Entropie*, Fifth SITB (Aalten), pp. 162–168, 1984.
- [146] Vinck, A.J., Hoeks, W.L.M. and Post, K.A., *Multiple Access with Feedback*, Fifth SITB (Aalten), pp. 187–193, 1984.
- [147] De Bruyn, K., Prelov, V.V. and E.C. van der Meulen, *Two Results on the Discrete Memoryless Asymmetric Multiple-Access Channel with Arbitrarily Correlated Sources*, Sixth SITB (Mierlo), pp. 183–192, 1985.
- [148] Hekstra, A.P. and Willems, F.M.J., *Dependence Balance Bounds for Multiple Access Channels with Feedback and Equal Output Two-Way Channels*, Sixth SITB (Mierlo), pp. 193–198, 1985.
- [149] Schalkwijk, J.P.M., *The Threshold Bound to the Capacity Region of a Two-Way Channel Revisited*, Sixth SITB (Mierlo), pp. 199–206, 1985.
- [150] Tolhuizen, L.M.G.M., *Discrete Coding for the BMC, based on Schalkwijk's Strategy*, Sixth SITB (Mierlo), pp. 207–212, 1985.
- [151] Schalkwijk, J.P.M., *On Powers of the Defect Channel and Their Equivalence to Noisy Channels with Feedback*, Seventh SITB (Noordwijkerhout), pp. 41–48, 1986.
- [152] Willems, F.M.J. and Vinck, A.J., *Repeated Recording for an Optical Disc*, Seventh SITB (Noordwijkerhout), pp. 49–54, 1986.

- [153] Kamminga, C., *The Uncertainty Product versus the Sum of Entropies Uncertainty Principle*, Seventh SITB (Noordwijkerhout), pp. 55–60, 1986.
- [154] Vanroose, P. and E.C. van der Meulen, *Coding for the Binary Switching Multiple Access Channel*, Seventh SITB (Noordwijkerhout), pp. 183–189, 1986.
- [155] Remijn, J.C.C.M., *On Minimum Breakdown Degradation in Binary Multiple Descriptions*, Seventh SITB (Noordwijkerhout), pp. 191–196, 1986.
- [156] Barbé, A., *Binary Random Sequences: Derivative Sequences and Multi-level  $\alpha$ -Typical Randomness*, Eighth SITB (Deventer), pp. 21–28, 1987.
- [157] De Moor, B. and Vandewalle, J., *The Uncertainty Principle of Mathematical Modelling*, Eighth SITB (Deventer), pp. 100–107, 1987.
- [158] Overveld, W.M.C.J. van, *Fixed- and Variable Length Strategies are Equivalent*, Eighth SITB (Deventer), pp. 117–123, 1987.
- [159] Prelov, V.V. and E.C. van der Meulen, *On the Slepian and Wolf Multiple-Access Channel with Gaussian Noise*, Eighth SITB (Deventer), pp. 132–139, 1987.
- [160] Schalkwijk, J.P.M., *The Echo Channel*, Eighth SITB (Deventer), pp. 140–148, 1987.
- [161] Vanroose, P., *Techniques for Constructing Codes for the Binary Switching Channel*, Eighth SITB (Deventer), pp. 175–181, 1987.
- [162] Verboven, B. and E.C. van der Meulen, *Strong Converses for Multiple-Access Channels*, Eighth SITB (Deventer), pp. 182–188, 1987.
- [163] Overveld, W.M.C.J. van and Schmitt, R.J.M., *Generalized Write-Unidirectional Memory Codes*, Ninth SITB (Mierlo), pp. 1–8, 1988.
- [164] Shi, G.Q., *On the Characterization of Information Divergence for Two-Terminal Hypothesis Testing with One Sided Data Compression*, Ninth SITB (Mierlo), pp. 171–174, 1988.
- [165] Vanroose, P. and E.C. van der Meulen, *Zero-Error Capacity and Quasi-Synchronized Codes for the Binary Switching Channel*, Ninth SITB (Mierlo), pp. 175–181, 1988.
- [166] Györfi, L. and E.C. van der Meulen, *The Almost Sure Consistency of a General Class of Entropy Estimators*, Ninth SITB (Mierlo), pp. 183–189, 1988.
- [167] Schalkwijk, J.P.M., *Shannon Strategies Revisited*, Tenth SITB (Houthalen), pp. 3–8, 1989.
- [168] Verboven, B. and E.C. van der Meulen, *Noiseless Broadcasting for Identification*, Tenth SITB (Houthalen), pp. 9–12, 1989.
- [169] Willems, F.M.J., *A Proof of the Coding Theorem for the Additive White Gaussian Noise Channel in Terms of Jointly Typical Sequences*, Tenth SITB (Houthalen), pp. 13–18, 1989.
- [170] Jian-Ping Ye, *Progress in Specific Models of Ordering*, Tenth SITB (Houthalen), pp. 19–22, 1989.
- [171] Overveld, W.M.C.J. van, *Write-Unidirectional Memory Codes Over Arbitrary Alphabets*, Tenth SITB (Houthalen), pp. 23–30, 1989.
- [172] Vanroose, P. and E.C. van der Meulen, *A New Proof of the Zero-Error Capacity Region of the Blackwell Broadcast Channel*, Tenth SITB (Houthalen), pp. 37–44, 1989.
- [173] Vanroose, P., *Code Constructions for Deterministic Relay Channels*, Eleventh SITB (Noordwijkerhout), pp. 15–21, 1990.
- [174] Schalkwijk, J.P.M., *Another 0.63056*, Eleventh SITB (Noordwijkerhout), pp. 155–161, 1990.
- [175] Overveld, W.M.C.J. van and Willems, F.M.J., *An Achievability Proof for Write Unidirectional Memories with Uninformed Encoder and Decoder*, Eleventh SITB (Noordwijkerhout), pp. 162–167, 1990.



- [176] Baggen, C.P.M.J. and Wolf, J.K., *An Information Theoretic Approach to Timing Jitter*, Eleventh SITB (Noordwijkerhout), p. 174, 1990.
- [177] Baggen, C.P.M.J. and Wolf, J.K., *Timing Jitter: Coding Theorems and Spectral Properties*, Twelfth SITB (Veldhoven), pp. 1–8, 1991.
- [178] Hekstra, A.P., *The Discrete Memoryless Timing Jitter Channel and its Capacity in the Case of Weak Synchronisation*, Twelfth SITB (Veldhoven), pp. 9–16, 1991.
- [179] Prelov, V.V. and E.C. van der Meulen, *The Capacity Region of the Compound Interference Channel with Additive Almost Gaussian Noise*, Twelfth SITB (Veldhoven), pp. 103–106, 1991.
- [180] Schalkwijk, J.P.M., *Upper Bounds for Unit Square Resolution*, Twelfth SITB (Veldhoven), pp. 107–112, 1991.
- [181] Salehi, M. and Willems, F.M.J., *Ring Source- and Channel Codes*, Twelfth SITB (Veldhoven), pp. 113–120, 1991.
- [182] Vleuten, R.J. van der, *High-Performance Low-Complexity Control of Pure and Slotted Aloha Systems*, Twelfth SITB (Veldhoven), pp. 129–135, 1991.
- [183] Schalkwijk, J.P.M., *On Genie Assisted Strategies*, Thirteenth SITB (Enschede), pp. 167–172, 1992.
- [184] Bloemen, A.H.A., *Codes for Two-Way Channels Without Feedback*, Thirteenth SITB (Enschede), pp. 173–180, 1992.
- [185] Schalkwijk, J.P.M., *Beating Shannon's Inner Bound with Message Percolation*, Fourteenth SITB (Veldhoven), pp. 14–23, 1993.
- [186] Bloemen, A.H.A., *Constructing Discrete Strategies for Two-Way Channels*, Fourteenth SITB (Veldhoven), pp. 24–31, 1993.
- [187] Meeuwissen, H.B., *New Constructive Coding Strategies for Two-Way Communication*, Fourteenth SITB (Veldhoven), pp. 32–39, 1993.
- [188] Kleima, D., *Is There a Foundation for Probability-Theory?*, Fourteenth SITB (Veldhoven), pp. 40–47, 1993.
- [189] Prelov, V.V. and E.C. van der Meulen, *The Capacity of a Continuous Alphabet Memoryless Channel with Vector-Valued Weak Input Signals*, Fourteenth SITB (Veldhoven), pp. 48–53, 1993.
- [190] Baggen, C.P.M.J. and Wolf, J.K., *On Band-Limited Additive Gaussian Noise Channels in the Presence of Sampling Jitter*, Fourteenth SITB (Veldhoven), pp. 54–61, 1993.
- [191] Schalkwijk, J.P.M., Meeuwissen, H.B. and Bloemen, A.H.A., *A Substantial Improvement of the Lower Bound to the Capacity Region of the Binary Multiplying Channel*, Fifteenth SITB (Louvain-la-Neuve), pp. 175–182, 1994.
- [192] Györfi, L. and E.C. van der Meulen, *Positive and Negative Findings on the Consistent Estimation of a Probability Density in Information Divergence*, Fifteenth SITB (Louvain-la-Neuve), pp. 183–187, 1994.
- [193] Prelov, V.V. and E.C. van der Meulen, *On the Fisher Information of the Sum of Two Independent Random Variables One of which is Small, and an Asymptotic Generalization of de Bruijn's Identity*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 25–32, 1995.
- [194] Schalkwijk, J.P.M., Meeuwissen, H.B. and Diederiks, P.J.E., *Two-Way Channels with Delay*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 33–40, 1995.
- [195] Vanroose, P., *Code Construction for Non-Cooperative Deterministic Multiuser Channels*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 151–158, 1995.
- [196] Tsybakov, B.S. and Weber, J.H., *Conflict-Avoiding Codes*, Seventeenth SITB (Enschede), pp. 49–56, 1996.

- [197] Schalkwijk, J.P.M. and Meeuwissen, H.B., *Efficient Coding Strategies From Two-Dimensional Weighting*, Seventeenth SITB (Enschede), pp. 129–136, 1996.
- [198] Meeuwissen, H.B. and Schalkwijk, J.P.M., *Some Observations on Two-Way Channels*, Eighteenth SITB (Veldhoven), pp. 57–64, 1997.
- [199] Bruin, M.G. de and Kamminga, C., *Normalization Procedures and Shannon's Entropy Measure*, Eighteenth SITB (Veldhoven), pp. 131–141, 1997.
- [200] Fu, F.-W. and Vinck, A.J., *On the Capacity of Generalized Write-Once Memory with State Transitions Described by an Arbitrary Directed Acyclic Graph*, Eighteenth SITB (Veldhoven), pp. 150–158, 1997.
- [201] Pinsker, M.S., Prelov, V.V. and E.C. van der Meulen, *Information Transmission over Stationary Channels with Additive Non-Gaussian Noise by Means of Weak Input Signals*, Nineteenth SITB (Veldhoven), pp. 143–148, 1998.
- [202] Pinsker, M.S., Prelov, V.V. and E.C. van der Meulen, *On Certain Channels with a Random Parameter*, Twentieth SITB (Haasrode), pp. 165–172, 1999.
- [203] Koshelev, V.N. and E.C. van der Meulen, *More on the Duality Between Source and Channel Coding*, Twentieth SITB (Haasrode), pp. 181–188, 1999.
- [204] Levendovsky, J., Kovács, L., Koller, I. and E.C. van der Meulen, *Optimal Resource Management Algorithm for Adaptive Modelling*, Twentieth SITB (Haasrode), pp. 197–204, 1999.
- [205] Tolhuizen, L.M.G.M., *The Binary Multiplying Channel Without Feedback: New Rate Pairs in the Zero-Error Capacity Region*, Twentieth SITB (Haasrode), pp. 215–218, 1999.
- [206] Vinck, A.J., *Coding for Random Access Communications*, Twentieth SITB (Haasrode), p. 227, 1999.
- [207] Badreddin, E., *Information Theoretic Aspects in the Design of Autonomous Robots*, Twenty-first SITB (Wassenaar), pp. 261–268, 2000.
- [208] Pinsker, M.S., Prelov, V.V. and E.C. van der Meulen, *Information Transmission of Slowly Varying Input Signals over Discrete Memoryless Stationary Channels*, Twenty-first SITB (Wassenaar), pp. 277–284, 2000.
- [209] Prelov, V.V. and E.C. van der Meulen, *Asymptotic Investigation of the Optimal Filtering Error and Information Rates in Certain Models of Observations and Channels*, Twenty-second SITB (Enschede), pp. 93–100, 2001.
- [210] Verdú, S., *New Tools for the Analysis of the Capacity of Very Noisy Channels*, Twenty-second SITB (Enschede), pp. 101–105, 2001.
- [211] Prelov, V.V. and E.C. van der Meulen, *Epsilon-Entropy of a Special Class of Ellipsoids in a Hamming Space*, Twenty-third SITB (Louvain-la-Neuve), pp. 37–43, 2002.
- [212] Barbé, A. and von Haeseler, F., *Symmetric Codes over Rings*, Twenty-third SITB (Louvain-la-Neuve), pp. 87–95, 2002.
- [213] Prelov, V.V. and E.C. van der Meulen, *Asymptotic Expansions of Mutual Information for a General Class of Additive Noise Channels with Small Signal-to-Noise Ratio*, Twenty-fourth SITB (Veldhoven), pp. 165–170, 2003.

### WIC Symposium Source Coding Papers

- [214] Schalkwijk, J.P.M., *On Petry's Extension of a Source Coding Algorithm*, Second SITB (Zoetermeer), pp. 99–102, 1981.
- [215] Desmedt, Y., Vandewalle, J., Govaerts, R., *The Influence of Parallel Coders in the Encoding of a Discrete Source*, Third SITB (Zoetermeer), pp. 13–17, 1982.

- [216] Tjalkens, Tj.J., Willems, F.M.J., *Variable to Fixed Length Source Codes for Unifilar Markov Sources*, Fifth SITB (Aalten), pp. 168-177, 1984.
- [217] Jansen, P., Oosterlinck, A., *On the Construction of Self-Synchronizing Efficient Encodings*, Sixth SITB (Mierlo), pp. 117-124, 1985.
- [218] Vanroose, P., Verbeke, J., *Enkele Beschouwingen bij Optimale Prefix Codes en de Huffman Procedure*, Sixth SITB (Mierlo), pp. 125-132, 1985.
- [219] Tjalkens, Tj.J., Willems, F.M.J., *Arithmetic Coding*, Sixth SITB (Mierlo), pp. 141-150, 1985.
- [220] Willems, F.M.J., *Repetition Times and Universal Data Compression*, Seventh SITB (Noordwijkerhout), pp. 73-80, 1986.
- [221] Tjalkens, Tj.J., *Constructing Arithmetic Source Codes*, Seventh SITB (Noordwijkerhout), pp. 81-88, 1986.
- [222] Tjalkens, Tj.J., Willems, F.M.J., *Universal Variable to Fixed Length Source Coding for Binary Memoryless Sources*, Eight SITB (Deventer), pp. 164-170, 1987.
- [223] Willems, F.M.J., *Fixed-To-Variable Length Petry Codes*, Eight SITB (Deventer), pp. 214-221, 1987.
- [224] Shtarkov, Y.M., Tjalkens, Tj.J., *The Redundancy of the Ziv-Lempel for Memoryless Sources*, Eleventh SITB (Noordwijkerhout), pp. 36-42, 1990.
- [225] Tjalkens, Tj.J., Willems, F.M.J., *A Lower Bound on the Asymptotic Redundancy of Universal Variable-To-Fixed Length Codes for Binary Memoryless Sources*, Eleventh SITB (Noordwijkerhout), pp. 43-46, 1990.
- [226] With, P.H.N. de, *On the Construction of High-Performance Self-Synchronizing Codes*, Eleventh SITB (Noordwijkerhout), p. 114, 1990.
- [227] Barron, A.R., Györfi, L., E.C. van der Meulen, *Universal Source Coding Based on Consistent Distribution Estimation*, Thirteenth SITB (Enschede), pp. 91-97, 1992.
- [228] Györfi, L., Páli, I., E.C. van der Meulen, *Good News and Bad News for Universal Noiseless Source Coding for Infinite Source Alphabet*, Thirteenth SITB (Enschede), p. 99, 1992.
- [229] Shtarkov, Y.M., Volkov, S., *Practical Text Compression with Universal Coding*, Thirteenth SITB (Enschede), p. 101, 1992.
- [230] Vanroose, P., *On Efficient Tree Representations*, Thirteenth SITB (Enschede), pp. 103-110, 1992.
- [231] Willems, F.M.J., Shtarkov, Y.M., Tjalkens, Tj.J., *Context Tree Weighting: General Finite Memory Sources*, Fourteenth SITB (Veldhoven), pp. 120-127, 1993.
- [232] Tjalkens, Tj.J., Shtarkov, Y.M., Willems, F.M.J., *Context Tree Weighting: Multi-Alphabet Sources*, Fourteenth SITB (Veldhoven), pp. 128-135, 1993.
- [233] Györfi, L., Páli, I., E.C. van der Meulen, *A General Sufficient Condition for Universal Source Coding for Infinite Alphabets*, Fourteenth SITB (Veldhoven), pp. 136-143, 1993.
- [234] Volf, P.J., Willems, F.M.J., *Context Maximizing: Finding MDL Decision Trees*, Fifteenth SITB (Louvain-La-Neuve), pp. 192-199, 1994.
- [235] Willems, F.M.J., *The Context Tree Weighting Method: Finite Accuracy Effects*, Fifteenth SITB (Louvain-La-Neuve), pp. 200-207, 1994.
- [236] Tjalkens, Tj.J., Willems, F.M.J., Shtarkov, Y.M., *Multi-Alphabet Universal Coding Using a Binary Decomposition Context Tree Weighting Algorithms*, Fifteenth SITB (Louvain-La-Neuve), pp. 259-262, 1994.
- [237] Macq, B., Marichal, X., Queluz, M.P., *Entropy Coding of Tree Decompositions*, Fifteenth SITB (Louvain-La-Neuve), pp. 282-289, 1994.

- [238] Tjalkens, Tj.J., Willems, F.M.J., *A Comparison of the Lempel-Ziv 1977 and 1978 Universal Data Compression Schemes*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 1-2, 1995.
- [239] Volf, P.J.A., Willems, F.M.J., *A Study of the Context Tree Maximizing Methods*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 3-9, 1995.
- [240] Gerrits, A.J., Beuker, R.A., Keesman, G.J., *Lossless Compression of Handwritten Signals*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 11-16, 1995.
- [241] Vanroose, P., *On Complexity Measures for a Tree*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 41-47, 1995.
- [242] Mitrea, M., P.H.N. de With, *A Comparison Between Huffman and Arithmetic Coding for Video Compression*, Seventeenth SITB (Enschede), pp. 25-30, 1996.
- [243] Volf, P.A.J., Willems, F.M.J., *Context-Tree Weighting for Extended Tree Sources*, Seventeenth SITB (Enschede), pp. 95-101, 1996.
- [244] Keesman, G.J., *Unification of Several Lossless Compression Codes*, Seventeenth SITB (Enschede), pp. 103-109, 1996.
- [245] Shtarkov, Y.M., Tjalkens, Tj.J., Willems, F.M.J., *Optimal Universal Coding with Respect to the Relative Redundancy Criterion*, Seventeenth SITB (Enschede), pp. 111-117, 1996.
- [246] Schouhamer Immink, K.A., Janssen, A.J.E.M., *Effects of Floating Point Arithmetic in Enumerative Coding*, Eighteenth SITB (Veldhoven), pp. 70-75, 1997.
- [247] Volf, P.A.J., Willems, F.M.J., *A Context-Tree Branch-Weighting Algorithm*, Eighteenth SITB (Veldhoven), pp. 115-122, 1997.
- [248] Willems, F.M.J., Tjalkens, Tj.J., *Complexity Reduction of the Context-Tree Weighting Method*, Eighteenth SITB (Veldhoven), pp. 123-130, 1997.
- [249] Volf, P.A.J., Willems, F.M.J., *The Switching Method: Elaborations*, Nineteenth SITB (Veldhoven), pp. 12-20, 1998.
- [250] Vleuten, R.J. van der, Bruekers, A.A.M.L., *Modeling Binary Audio Signals for Lossless Compression*, Nineteenth SITB (Veldhoven), pp. 135-142, 1998.
- [251] Balakirsky, V.B., Willems, F.M.J., *Nonasymptotic Lower Bound on the Maximal Cumulative Redundancy of Universal Coding*, Twentieth SITB (Haasrode), pp. 17-24, 1999.
- [252] Volf, P.A.J., Willems, F.M.J., Tjalkens, Tj.J., *Complexity Reducing Techniques for the CTW Algorithm*, Twentieth SITB (Haasrode), pp. 25-32, 1999.
- [253] Vanroose, P., *Stochastic Language Modelling Using Context Tree Weighting*, Twentieth SITB (Haasrode), pp. 33-38, 1999.
- [254] Tjalkens, Tj.J., *The Complexity of Minimum Redundancy Coding*, Twenty-first SITB (Wassenaar), pp. 247-254, 2000.
- [255] Nowbakht, A., Tjalkens, Tj.J., Willems, F.M.J., *Coding for Sources Satisfying a Permutation Property*, Twenty-second SITB (Enschede), pp. 77-84, 2001.
- [256] Stassen, M.L.A., Tjalkens, Tj.J., *A Parallel Implementation of the CTW Compression Algorithm*, Twenty-second SITB (Enschede), pp. 85-92, 2001.
- [257] Nowbakht, A., Willems, F.M.J., *Faster Universal Modeling for Two Source Classes*, Twenty-third SITB (Louvain-La-Neuve), pp. 29-36, 2002.
- [258] Hekstra, A.P., *Improvements of the Context Tree Maximizing (CTM) Data Compression Algorithm*, Twenty-third SITB (Louvain-La-Neuve), pp. 123-130, 2002.
- [259] Salden, A., Aldershoff, F., Jacob, S., Otte, R., *Web-Enabled Multimedia Categorization*, Twenty-third SITB (Louvain-La-Neuve), pp. 9-16, 2002.

- [260] Stasinski R. and G. Ulacha, *Huffman Codes Revisited*, Twenty-fourth SITB (Veldhoven), pp. 63-70, 2003.

### WIC Symposium Cryptology Papers

- [261] Piret, Ph., *Wire-Tapping of a Binary Symmetric Channel*, First SITB (Zoetermeer), pp. 55-57, 1980.
- [262] Desmedt, Y., Vandewalle, J., Govaerts, R., *Critical Analysis of the Security of Knapsack Public Key Algorithms*, Third SITB (Zoetermeer), pp. 19-27, 1982.
- [263] Lenstra, H.W., Jr., *Primality and Factorization*, Fourth SITB (Haasrode), pp. 13-17, 1983.
- [264] Massey, J.L., *Logarithms in Finite Cyclic Groups Cryptographic Issues*, Fourth SITB (Haasrode), pp. 17-25, 1983.
- [265] Desmedt, Y., Vandewalle, J., Govaerts, R., *A General Public Key Cryptographic Knapsack Algorithm Based on Linear Algebra*, Fourth SITB (Haasrode), pp. 55-62, 1983.
- [266] Desmedt, Y., Vandewalle, J., Govaerts, R., *The Mathematical Relation Between the Economic, Cryptographic and Information Theoretical Aspects of Authentication*, Fourth SITB (Haasrode), pp. 63-65, 1983.
- [267] Jansen, C.J.A., *Classical Key Management*, Fifth SITB (Aalten), pp. 94-101, 1984.
- [268] Jansen, C.J.A., *Key Signature Schemes*, Seventh SITB (Noordwijkerhout), pp. 197-205, 1986.
- [269] Tilburg, J. van, Boekee, D.E., *The  $P_e$ -Security Distance as a Generalized Unicity Distance*, Seventh SITB (Noordwijkerhout), pp. 207-215, 1986.
- [270] Jansen, C.J.A., Boekee, D.E., *The Algebraic Normal Form of Arbitrary Functions over Finite Fields*, Eight SITB (Deventer), pp. 69-76, 1987.
- [271] Struik, R., Tilburg, J. van, Boly, J-P., *On the Rao-Nam Private-Key Cryptosystem*, Ninth SITB (Mierlo), pp. 137-145, 1988.
- [272] Franx, W.G., Jansen, C.J.A., Boekee, D.E., *An Efficient Algorithm for the Generation of De Bruyn Cycles*, Ninth SITB (Mierlo), pp. 147-154, 1988.
- [273] Boekee, D.E., Lubbe, J.C.A., van der, *Error Probabilities and Transposition Ciphers*, Ninth SITB (Mierlo), pp. 155-162, 1988.
- [274] Willems, F.M.J., *On Gaussian Channels with Side Information at the Transmitter*, Ninth SITB (Mierlo), pp. 129-136, 1988.
- [275] Jansen, C.J.A., Boekee, D.E., *Information Theory of Shift Register Sequences*, Tenth SITB (Houthalen), pp. 153-160, 1989.
- [276] Jansen, C.J.A., *On the Construction of De Bruijn Sequences*, Eleventh SITB (Noordwijkerhout), pp. 47-51, 1990.
- [277] Preneel, B., Van Leekwijck, W., Van Linden, L., Govaerts, R., Vandewalle, J., *An Extension of Higher Order Propagation Criteria for Boolean Functions*, Eleventh SITB (Noordwijkerhout), pp. 52-59, 1990.
- [278] Lubbe, J.C.A. van der, Spaanderman, J.J., Boekee, D.E., *On Cryptosystems for Digital Imagery*, Eleventh SITB (Noordwijkerhout), pp. 60-66, 1990.
- [279] Verboven, B., *Identification via a Stochastically Varying Channel*, Eleventh SITB (Noordwijkerhout), pp. 168-173, 1990.
- [280] Daemen, J., Govaerts, R., Vandewalle, J., *Efficient Pseudorandom Sequence Generation by Cellular Automata*, Twelfth SITB (Veldhoven), pp. 17-24, 1991.
- [281] Daemen, J., Van Linden, L., Govaerts, R., Vandewalle, J., *Propagation Properties of Multiplication Modulo  $2N-1$* , Thirteenth SITB (Enschede), pp. 111-118, 1992.

- [282] Preneel, B., Bosselaers, A., Govaerts, R., Vandewalle, J., *A Software Implementation of the McEliece Public-Key Cryptosystem*, Thirteenth SITB (Enschede), pp. 119–126, 1992.
- [283] Verschuren, J., Govaerts, R., Vandewalle, J., *Relationship Between the Bell-La Padula Security Policy and Security Services in the OSI-RM*, Thirteenth SITB (Enschede), pp. 127–134, 1992.
- [284] Macq, B., Quisquater, J.J., *Lossless Image Encryption*, Fourteenth SITB (Veldhoven), pp. 96–103, 1993.
- [285] Delos, O., Quisquater, J.J., *Digital Signature Schemes with Several Cooperating Entities*, Fourteenth SITB (Veldhoven), pp. 104–113, 1993.
- [286] Tilburg, J. van, *Cryptanalysis of the Alabbadi-Wicker Digital Signature Scheme*, Fourteenth SITB (Veldhoven), pp. 114–119, 1993.
- [287] Harpes, C., Kremer, G.G., Massey, J.L., *Generalized Linear Cryptanalysis and the Applicability of the Piling-Up Lemma*, Fifteenth SITB (Louvain-La-Neuve), pp. 90–99, 1994.
- [288] Bosselaers, A., Govaerts, R., Vandewalle, J., *A Fast and Flexible Software Library for Large Number Arithmetic*, Fifteenth SITB (Louvain-La-Neuve), pp. 100–107, 1994.
- [289] Daemen, J., Govaerts, R., Vandewalle, J., *An Efficient Nonlinear Shift-Invariant Transformation*, Fifteenth SITB (Louvain-La-Neuve), pp. 108–115, 1994.
- [290] Delos, O., Quisquater, J.J., *Schemes for Signature with Bounded Life-Span*, Fifteenth SITB (Louvain-La-Neuve), pp. 116–118, 1994.
- [291] Béguin, P., Quisquater, J.J., *Resistant Server-Aided Computations for Public-Key Cryptosystems*, Fifteenth SITB (Louvain-La-Neuve), pp. 127–131, 1994.
- [292] Radu, C., Vandenwauver, M., Govaerts, R., Vandewalle, J., *Subject View Access Mechanism in the Personal Database*, Fifteenth SITB (Louvain-La-Neuve), pp. 119–126, 1994.
- [293] Boucqueau, J.M., Bruyndonckx, O., Lacroix, S., Mertès, J.Y., Macq, B., Quisquater, J.J., *Access Control and Copyright Protection for Images*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 17–24, 1995.
- [294] Dijk, M. van, *Coding Gain Strategies for the Binary Symmetric Broadcast Channel with Confidential Messages*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 53–59, 1995.
- [295] Radu, C., Vandenwauver, M., Govaerts, R., Vandewalle, J., *An Efficient Traceable Payment System*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 61–67, 1995.
- [296] Tilburg, J. van, *The Fall of the Alabbadi and Wicker Digital Signature Schemes*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 69–72, 1995.
- [297] Verschuren, J., *On the Security of OSI-Based Computer Networks*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 73–79, 1995.
- [298] Hekstra, A.P., Tilburg, J. van, *An Efficient Scheme Broadcasting Secured Messages*, Seventeenth SITB (Enschede), p. 31, 1996.
- [299] Langelaar, G.C., Lubbe, J.C.A. van der, Biemond, J., *Copy Protection for Multimedia Data Based on Labeling Techniques*, Seventeenth SITB (Enschede), pp. 33–39, 1996.
- [300] Dijk, M. van, Koppelaar, A., *Quantum Key Agreement*, Eighteenth SITB (Veldhoven), pp. 97–104, 1997.
- [301] Langelaar, G.C., Lagendijk, R.L., Biemond, J., *Real-Time Labeling Methods for MPEG Compressed Video*, Eighteenth SITB (Veldhoven), pp. 25–32, 1997.

- [302] Vandenwauver, M., Govaerts, R., Vandewalle, J., *An Overview of E-Mail Security Schemes*, Eighteenth SITB (Veldhoven), pp. 105–112, 1997.
- [303] Verheul, E.R., Tilborg, H.C.A. van, *Cryptanalysis of Less Short' RSA Secret Exponents*, Eighteenth SITB (Veldhoven), pp. 113–114, 1997.
- [304] Kalker, T., *A Security Risk for Publicly Available Watermark Detectors*, Nineteenth SITB (Veldhoven), pp. 119–125, 1998.
- [305] Van Rompay, B., Preneel, B., Vandewalle, J., *On the Security of Dedicated Hash Functions*, Nineteenth SITB (Veldhoven), pp. 103–110, 1998.
- [306] Borst, J., Preneel, B., Vandewalle, J., *On the Time-Memory Tradeoff Between Exhaustive Key Search and Table Precomputation*, Nineteenth SITB (Veldhoven), pp. 111–118, 1998.
- [307] Hachez, G., Koeune, F., Quisquater, J.-J., *Timing Attack: What Can Be Achieved by a Powerful Adversary?*, Twentieth SITB (Haasrode), pp. 63–70, 1999.
- [308] Van Rompay, B., Preneel, B., Vandewalle, J., *The Digital Timestamping Problem*, Twentieth SITB (Haasrode), pp. 71–78, 1999.
- [309] Massias, H., Serret Avila, X., Quisquater, J.-J., *Design of a Secure Timestamping Service with Minimal Trust Requirement*, Twentieth SITB (Haasrode), pp. 79–86, 1999.
- [310] Balakirsky, V.B., *Characterization of the Secrecy of a Common Key Constructed via Data Transmission over the Two-Way "And" Channel*, Twentieth SITB (Haasrode), pp. 87–94, 1999.
- [311] Xu, S.-B., Doumen, J., *An Attack Against the Alabbadi-Wicker Scheme*, Twentieth SITB (Haasrode), pp. 95–100, 1999.
- [312] Nakahara, J., Jr., Vandewalle, J., Preneel, B., *Diffusion Analysis of Feistel Networks*, Twentieth SITB (Haasrode), pp. 101–108, 1999.
- [313] Claessens, J., Preneel, B., Vandewalle, J., *Anonymity Controlled Electronic Payment Systems*, Twentieth SITB (Haasrode), pp. 109–116, 1999.
- [314] Kalker, T., Oostveen, J., Linnartz, J.-P., *Maximum Likelihood Detection of Multiplicative Watermarks*, Twenty-first SITB (Wassenaar), pp. 101–108, 2000.
- [315] Struik, R., *On One-Pass Combined Encryption and Authentication*, Twenty-first SITB (Wassenaar), pp. 109–113, 2000.
- [316] Borst, J., Preneel, B., Vandewalle, J., *Power Analysis: Methods and Countermeasures*, Twenty-first SITB (Wassenaar), pp. 115–120, 2000.
- [317] Tilburg, J. van, *Boosting the e-Security of GSM*, Twenty-first SITB (Wassenaar), pp. 121–128, 2000.
- [318] Meijer, M.R., Jansen, C.J.A., *Efficient Run Permuted Sequence Generation*, Twenty-first SITB (Wassenaar), pp. 129–137, 2000.
- [319] Kremer, S., Markowitch, O., *Optimistic Non-Repudiable Information Exchange*, Twenty-first SITB (Wassenaar), pp. 139–146, 2000.
- [320] Willems, F.M.J., *An Information Theoretical Approach to Information Embedding*, Twenty-first SITB (Wassenaar), pp. 255–260, 2000.
- [321] Dijk, M. van, Willems, F.M.J., *Embedding Information in Grayscale Images*, Twenty-second SITB (Enschede), pp. 147–154, 2001.
- [322] Borne, D. van den, Kalker, T., Willems, F.M.J., *Codes for Writing on Dirty Paper*, Twenty-third SITB (Louvain-La-Neuve), pp. 45–52, 2002.
- [323] Diaz, C., Claessens, J., Seys, S., Preneel, B., *Information Theory and Anonymity*, Twenty-third SITB (Louvain-La-Neuve), pp. 179–186, 2002.

- [324] Gaddach, A., *A New Group Identification Scheme*, Twenty-third SITB (Louvain-La-Neuve), pp. 53–60, 2002.
- [325] Batina, L., Jansen, C.J.A., Muurling, G., Xu, S.-B., “Almost Montgomery” Base Multiplier in  $GAG(2^N)$ , Twenty-third SITB (Louvain-La-Neuve), pp. 61–68, 2002.
- [326] Potgieter, M.J., Dyk, B.J. van, Tjalkens, Tj.J., *A Fast Multiplier for Characteristic-2 Finite Fields*, Twenty-third SITB (Louvain-La-Neuve), pp. 69–74, 2002.
- [327] Lefebvre, F., Macq, B., Legat, J.-D., *Agaddis: Authentication and Geometrical Attacks Detection for Digital Image Signature*, Twenty-third SITB (Louvain-La-Neuve), pp. 171–178, 2002.
- [328] Nakahara, J., Jr., Barreto, P., Preneel, B., Vandewalle, J., Kim, H., *Square Attacks on Reduced-Round PES and IDEA Block Ciphers*, Twenty-third SITB (Louvain-La-Neuve), pp. 187–195, 2002.
- [329] Nikov, V., Nikova, S., Preneel, B., Vandewalle, J., *Applying General Access Structure for Proactive Secret Sharing Schemes*, Twenty-third SITB (Louvain-La-Neuve), pp. 197–206, 2002.
- [330] Bechlaghem, M., *Multi-Party Server-Aided Key Distribution Protocols Based on Symmetric Techniques*, Twenty-third SITB (Louvain-La-Neuve), pp. 215–223, 2002.
- [331] Batina, L., Jansen, C.J.A., *Secret Exponent Information Leakage for Timing Analyses*, Twenty-third SITB (Louvain-La-Neuve), pp. 225–235, 2002.
- [332] Ciet, M., Quisquater, J.-J., Francesco, S., *A Short Note on Irreducible Trinomials in Binary Fields*, Twenty-third SITB (Louvain-La-Neuve), pp. 233–234, 2002.
- [333] Canteaut, A., Filiol, E., *On the Influence of the Filtering Function on the Performance of Fast Correlation Attacks on Filter Generators*, Twenty-third SITB (Louvain-La-Neuve), pp. 299–306, 2002.
- [334] Carlet, C., Klapper, A., *Upper Bounds on the Numbers of Resilient Functions and of Bent Functions*, Twenty-third SITB (Louvain-La-Neuve), pp. 307–314, 2002.
- [335] Ciet, M., Piret, G., Quisquater, J.-J., *Related-Key and Slide Attacks: Analysis, Connections, and Improvements*, Twenty-third SITB (Louvain-La-Neuve), pp. 315–325, 2002.
- [336] Moulin, P., *Information Hiding Games*, Twenty-third SITB (Louvain-La-Neuve), pp. 382, 2002.
- [337] Batina, L. and Jansen, C.J.A., *Side-Channel Entropy for Modular Exponentiation Algorithms*, Twenty-fourth SITB (Veldhoven), pp. 37–44, 2003.
- [338] Laguillaumie F. and Vergnaud D., *Extending the Boneh-Durfee-De Weger’s Attack to RSA-like Cryptosystems*, Twenty-fourth SITB (Veldhoven), pp. 45–52, 2003.
- [339] Standaert, F.-X., Rouvroy, G., Piret, G., Quisquater, J.-J. and Legat J.-D., *Key-Dependent Approximations in Cryptanalysis – an Application of Multiple  $\mathbb{Z}_A$  and Non-Linear Approximations*, Twenty-fourth SITB (Veldhoven), pp. 53–62, 2003.
- [340] Maas, D., Kalker, T. and Willems, F.M.J. *Capacity of Reversible Information Embedding for Small Distortions*, Twenty-fourth SITB (Veldhoven), pp. 95–102, 2003.
- [341] Verbitskiy, E., P. Tuyls, D. Denteneer, and J.P. Linnartz, *Reliable (Robust) Biometric Authentication with Privacy Protection*, Twenty-fourth SITB (Veldhoven), 2003.
- [342] Ciet, M., Piret G., and Quisquater, J.-J., *A Structure of Block Ciphers Achieving Some Resistance Against Fault Attacks*, Twenty-fourth SITB (Veldhoven), pp. 171–178, 2003.
- [343] Kholosha, A., *Tensor Transform of Functions over Finite Fields*, Twenty-fourth SITB (Veldhoven), pp. 179–186, 2003.
- [344] Saeednia, S., Kremer S., and Markowitch, O., *Efficient Designated Verifier Signature Schemes*, Twenty-fourth SITB (Veldhoven), pp. 187–194, 2003.



- [345] Seys S., and B. Preneel, *Authenticated and Efficient Key Management for Ad-Hoc Networks*, Twenty-fourth SITB (Veldhoven), pp. 195–202, 2003.

### WIC Symposium Channel Coding Papers

- [346] Post, K.A. , *New Upper Bounds for the First Event Error Probability of Binary Convolutional Codes Using Viterbi Decoding on a Binary Symmetric Channel*, First SITB (Zoetermeer), pp. 59–63, 1980.
- [347] Roefs, H.F.A. , *Concatenated Coding; an Investigation for the European Space Agency*, First SITB (Zoetermeer), pp. 65–67, 1980.
- [348] Schalkwijk, J.P.M. , *On a Description of the Operation of a Maximum Likelihood Decoder for Convolutional Codes that Allows Exact Evaluation of the Event Error Probability*, First SITB (Zoetermeer), pp. 69–82, 1980.
- [349] Tilborg, H.C.A. van, Helleseth, T., *New Results Concerning the Griesmer Bound* , First SITB (Zoetermeer), pp. 93–97, 1980.
- [350] Best, M.R. en Roefs, H.F.A. , *Telemetrie-Kanaalcodering met de (256,224) Reed-Solomon Code over GF(257)*, Second SITB (Zoetermeer), pp. 25–33, 1981.
- [351] Schalkwijk, J.P.M., Brouwer, J.A.M., *On the Complexity of Sequential Decoders*, Second SITB (Zoetermeer), pp. 113–121, 1981.
- [352] Roos, C., *A Result on the Minimum Distance of a Linear Code with Applications to Cyclic Codes*, Third SITB (Zoetermeer), pp. 103–111, 1982.
- [353] Best, M.R., *A Convolutional Decoder with Reliability Information*, Fourth SITB (Haasrode), pp. 27–29, 1983.
- [354] Vroedt, C. de, *On the Weight Enumerator of Self-Dual Codes*, Fourth SITB (Haasrode), pp. 39–42, 1983.
- [355] Piret, Ph., *Binary Codes for Compound Channels*, Fourth SITB (Haasrode), pp. 43–47, 1983.
- [356] Pul, C.L.M. van, *Lower Bounds for  $A(n,4,w)$* , Fourth SITB (Haasrode), pp. 49–53, 1983.
- [357] Busschbach, P.B., Gerretzen, M.G.L., Tilborg, H.C.A. van, *The Numbers  $S$  and  $\rho$  of Binary Linear Codes, Meeting the Griesmer Bound with Equality*, Fifth SITB (Aalten), pp. 28–35, 1984.
- [358] Schouhamer Immink, K.A., *Performance of DC-Constrained Codes*, Fifth SITB (Aalten), pp. 137–143, 1984.
- [359] Simons, H.J., Roefs, H.F.A., *Channel Coding with the (255,255-2T) Reed-Solomon Codes over GF(256)*, Fifth SITB (Aalten), pp. 144–151, 1984.
- [360] With, P.H.N. de, *On Performance Criteria for DC-Free Codes*, Fifth SITB (Aalten), pp. 194–201, 1984.
- [361] Pul, C.L.M. van, *Computer Memories with Defective Cells*, Sixth SITB (Mierlo), pp. 43–47, 1985.
- [362] Baggen, C.P.M.J., *MDS Codes for the Correction of Stuck-at Defects*, Sixth SITB (Mierlo), pp. 49–53, 1985.
- [363] Vinck, A.J., *Convolutional Code and Defects*, Sixth SITB (Mierlo), pp. 55–61, 1985.
- [364] Gils, W.J. van, *Dot Codes for Product Identification*, Sixth SITB (Mierlo), pp. 63–65, 1985.
- [365] Haemers, W., *Een Hammingcode voor de Postcode*, Sixth SITB (Mierlo), pp. 67–73, 1985.

- [366] Gils, W.J. van, *Construction and Properties of [3,1] Codes over  $GF(2^m)$ ,  $m=4,8,16$ , to be Used in a Fault-Tolerant System Based on Triple Modular Redundancy*, Sixth SITB (Mierlo), pp. 75–79, 1985.
- [367] Beenker, G.F.M., Schouhamer Immink, K.A., *On the Number of Codewords of a  $dc^2$ -Balanced Code*, Sixth SITB (Mierlo), pp. 133–139, 1985.
- [368] Best, M.R., *A Markov Chain Model for a Convolutional Coding Scheme*, Sixth SITB (Mierlo), pp. 151–159, 1985.
- [369] Nouwens, W.J.W.M., Verlijdsdonk, A.P., *Soft-Decision,  $R=1/2$ , Viterbi Decoding*, Sixth SITB (Mierlo), pp. 171–181, 1985.
- [370] Blaum, M., Farrell, P.G., Tilborg, H.C.A. van, *A Class of Burst Correcting Codes*, Seventh SITB (Noordwijkerhout), pp. 31–36, 1986.
- [371] Gils, W.J. van, *An Error-Control Coding System for Storage of 16-Bit Words in Memory Arrays Composed of Three 9-Bit Wide Units*, Seventh SITB (Noordwijkerhout), pp. 37–40, 1986.
- [372] Boly, J-P., Gils, W.J., *On Combined Symbol and Digit Error-Control Codes*, Eight SITB (Deventer), pp. 45–52, 1987.
- [373] Moolen, P.C.M. van der, *Decoding with Memory*, Eight SITB (Deventer), pp. 93–99, 1987.
- [374] Schouhamer Immink, K.A., *Coding Techniques for Partial-Response Channels*, Eight SITB (Deventer), pp. 149–156, 1987.
- [375] Tolhuizen, L.M.G.M., *On the Blokh-Zyablov Construction*, Eight SITB (Deventer), pp. 171–174, 1987.
- [376] Vinck, A.J., Post, K.A., *Application of a Combined Test-Error-Correcting Procedure for Memories with Defects*, Eight SITB (Deventer), pp. 189–195, 1987.
- [377] Weber, J.H., Vroedt, C. de, Boekee, D.E., *A Construction Method for Codes Correcting Asymmetric Errors*, Eight SITB (Deventer), pp. 203–207, 1987.
- [378] Weber, J.H., Vroedt, C. de, Boekee, D.E., *Bounds on the Size of Codes Correcting Unidirectional Errors*, Ninth SITB (Mierlo), pp. 9–15, 1988.
- [379] Stevens, P., *Extension of the BCH Decoding Algorithm in Order to Decode Binary Cyclic Codes up to Their Maximum Correction Capacities*, Ninth SITB (Mierlo), pp. 17–23, 1988.
- [380] Kapralov, S.N., Tonchev, V.D., *Extremal Doubly-Even Codes of Length 64 Derived from Symmetric Designs*, Ninth SITB (Mierlo), pp. 25–30, 1988.
- [381] Schalkwijk, J.P.M., Post, K.A., *Simple and Optimal Coding Strategies for Memories with Known Defects*, Ninth SITB (Mierlo), pp. 49–57, 1988.
- [382] Peek, J.A., Vinck, A.J., *Bit Error Rate and Complexity of a New Coding Algorithm for Defect Channels and Erasure Channels*, Ninth SITB (Mierlo), pp. 59–65, 1988.
- [383] Vinck, A.J., Vleuten, R. van der, *A Method to Implement Linear Complexity Decoding*, Ninth SITB (Mierlo), pp. 75–80, 1988.
- [384] Weber, J.H., Vroedt, C. de, Boekee, D.E., *Conditions on Block Codes for Correction/Detection of Errors of Various Types*, Tenth SITB (Houthalen), pp. 31–36, 1989.
- [385] Tolhuizen, L.M.G.M., Baggen, S., *On the Correcting Capabilities of Product Codes*, Tenth SITB (Houthalen), pp. 45–50, 1989.
- [386] Ericson, T., *Concatenated Codes – A Survey of Recent Developments*, Tenth SITB (Houthalen), pp. 89–91, 1989.
- [387] Tilburg, J. van, *A Probabilistic Decoding Scheme*, Tenth SITB (Houthalen), pp. 147–152, 1989.

- [388] Stevens, P., *Two Suggestions to Improve on the Efficiency of the Check Computations in the Banking-System in Belgium*, Tenth SITB (Houthalen), pp. 161–167, 1989.
- [389] Weber, J.H., Abdel-Ghaffar, K.A.S., *A Class of Runlength-Limited Error Detecting Codes*, Eleventh SITB (Noordwijkerhout), pp. 22–28, 1990.
- [390] Hollmann, H.D.L., Schouhamer Immink, K.A., *Enumeration of Prefix-Synchronized Runlength-Limited Sequences*, Twelfth SITB (Veldhoven), pp. 79–85, 1991.
- [391] Hollmann, H.D.L., Tolhuizen, L.M.G.M., *Relaxed Conditions for Successful Generalized Minimum Distance Decoding*, Twelfth SITB (Veldhoven), pp. 87–93, 1991.
- [392] Weber, J.H., Abdel-Ghaffar, K.A.S., *Methods for Cascading Runlength-Limited Sequences*, Twelfth SITB (Veldhoven), pp. 95–101, 1991.
- [393] Hekstra, A.P., *On the Maximum Difference Between Path Metrics in a Viterbi Decoder*, Thirteenth SITB (Enschede), pp. 47–55, 1992.
- [394] Tjalkens, T.J.J., *Glueless Runlength-Limited Sequences*, Thirteenth SITB (Enschede), pp. 57–64, 1992.
- [395] Weber, J.H., Abdel-Ghaffar, K.A.S., *Merging Bits for Cascading Runlength-Limited Sequences*, Thirteenth SITB (Enschede), pp. 65–72, 1992.
- [396] Veugen, T.H., *Repetition Strategies for the Binary Symmetric Channel with Feedback*, Fourteenth SITB (Veldhoven), pp. 8–13, 1993.
- [397] Hekstra, A.P., *Reduction of the Numerical Range of the Path Metrics in a Viterbi Decoder*, Fourteenth SITB (Veldhoven), pp. 70–78, 1993.
- [398] Hollmann, H.D.L., *Construction of Bounded-Delay Encodable Modulation Codes by State-Combination and State-Splitting*, Fourteenth SITB (Veldhoven), pp. 80–87, 1993.
- [399] Weber, J.H., Kaag, G.H., *A Construction Method for Systematic Codes Correcting/Detecting Asymmetric Errors*, Fourteenth SITB (Veldhoven), pp. 88–94, 1993.
- [400] Delsarte, P., *Application and Generalization of the MacWilliams Transform in Coding Theory*, Fifteenth SITB (Louvain-La-Neuve), pp. 9–44, 1994.
- [401] Ericson, T., Zinoviev, V., *Spherical Codes from Unsymmetric Alphabets*, Fifteenth SITB (Louvain-La-Neuve), pp. 45–52, 1994.
- [402] Gillot, V., *Minimum Weight for Codes Stemmed from Exponential Sums Bounds*, Fifteenth SITB (Louvain-La-Neuve), pp. 53–60, 1994.
- [403] Peirani, B.,  *$(U, U+V)$  Codes of Asymptotic Normal Weight Distribution*, Fifteenth SITB (Louvain-La-Neuve), pp. 61–68, 1994.
- [404] Vanroose, P., *In Search of Maximum Distance Separable Codes over the Ring of Integers Modulo  $M$* , Fifteenth SITB (Louvain-La-Neuve), pp. 69–76, 1994.
- [405] Weber, J.H., *Asymptotic Results on Symmetric, Unidirectional and Asymmetric Error Control Codes*, Fifteenth SITB (Louvain-La-Neuve), pp. 77–81, 1994.
- [406] Veugen, T., *Error Probabilities of Repetition Feedback Strategies with Fixed Delay for Discrete Memoryless Channels*, Fifteenth SITB (Louvain-La-Neuve), pp. 188–191, 1994.
- [407] Veugen, T., *Tail Conditions for Multiple Repetition Feedback Block Coding*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 107–113, 1995.
- [408] Offermans, G.W.A., Breeuwer, E.J., Weber, J.H., Willigen, D. van, *Error-Correction Strategies for the Eurofix Navigation System*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 115–122, 1995.
- [409] Baggen, C.P.M.J., Tolhuizen, L.M.G.M., *On the Diamond Code Construction*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 123–126, 1995.

- [410] Tolhuizen, L.M.G.M., Baggen, C.P.M.J., *Block Variations of Diamond Codes*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 127–131, 1995.
- [411] Hekstra, A.P., *Synchronisation for Codes on Circles*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 175–176, 1995.
- [412] Abdel-Ghaffar, K.A.S., Weber, J.H., *Constrained Block Codes for Partial-Response Maximum-Likelihood Channels*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 177–183, 1995.
- [413] Willems, F.M.J., Pašić, A., *Minimizing the Packet Error Probability*, Seventeenth SITB (Enschede), pp. 41–48, 1996.
- [414] Schalkwijk, J.P.M., Bargh, M.S., *Coding for Channels with Low Rate Noiseless Feedback*, Seventeenth SITB (Enschede), pp. 121–127, 1996.
- [415] Heijnen, P., *The Decoding of Binary Quasi-Cyclic Codes*, Eighteenth SITB (Veldhoven), pp. 1–4, 1997.
- [416] Keuning, J., *Performance and Complexity of Decoding Algorithms*, Eighteenth SITB (Veldhoven), pp. 5–8, 1997.
- [417] Bratatjandra, G.H., Weber, J.H., *Variable-Rate Codes for Multiple Localized Burst Error Correction*, Eighteenth SITB (Veldhoven), pp. 49–56, 1997.
- [418] Bart, B. de, *Coping with Ambiguities in the Channel Code for DVB-S*, Eighteenth SITB (Veldhoven), pp. 65–69, 1997.
- [419] Tolhuizen, , *A Bound on the State-Complexity of a Binary Linear Block Code*, Eighteenth SITB (Veldhoven), pp. 76–80, 1997.
- [420] Weber, J.H., Abdel-Ghaffar, K.A.S., *Inner Decoder Optimization in a Simple Concatenated Coding Scheme with Single-Trial Decoding*, Nineteenth SITB (Veldhoven), pp. 67–74, 1998.
- [421] Tolhuizen, L.M.G.M., Hekstra-Nowacka, E., *Some Results on Serially Concatenated Codes*, Nineteenth SITB (Veldhoven), pp. 75–82, 1998.
- [422] Dijk, M. van, Keuning, J., *A Quaternary BCH-Code Based Binary Quasi-Cyclic Code Construction*, Nineteenth SITB (Veldhoven), pp. 83–90, 1998.
- [423] Bargh, M.S., Schalkwijk, J.P.M., *A Block Retransmission Strategy for Multiple Repetition Feedback Coding Schemes*, Nineteenth SITB (Veldhoven), pp. 91–98, 1998.
- [424] Canogar, R., *An Example of Reconstructing the Cells of a Partition Design from its Adjacency Matrix*, Nineteenth SITB (Veldhoven), pp. 99–102, 1998.
- [425] Vangheluwe, S., *Experimental Investigation of Bounds on the Rate of Superimposed Codes in  $\mathbb{R}^n$* , Nineteenth SITB (Veldhoven), pp. 165–172, 1998.
- [426] Stam, M., Vinck, A.J., *On Optical Orthogonal Codes*, Nineteenth SITB (Veldhoven), pp. 185–192, 1998.
- [427] Koppelaar, A., *Soft-in Soft-Out Multiplexers as a Building Block in Soft-Output Viterbi Decoders*, Nineteenth SITB (Veldhoven), pp. 193–200, 1998.
- [428] Bargh, M.S., Schalkwijk, J.P.M., *Recursive Decoding of Multiple Repetition Feedback Coding Schemes for Binary-Input Soft-Output Discrete Memoryless Channels*, Nineteenth SITB (Veldhoven), pp. 201–208, 1998.
- [429] Bargh, M.S., Schalkwijk, J.P.M., *On Error Correction in Information Feedback Schemes*, Twentieth SITB (Haasrode), pp. 173–180, 1999.
- [430] Weber, J.H., Abdel-Ghaffar, K.A.S., *Error Correction Capabilities of Concatenated Coding Schemes with Single-Trial Bounded Distance Decoding and Optimized Erasing*, Twentieth SITB (Haasrode), pp. 219–226, 1999.
- [431] Weber, J.H., Abdel-Ghaffar, K.A.S., *Single-Trial Generalized Minimum Distance Decoding*, Twenty-first SITB (Wassenaar), pp. 1–8, 2000.

- [432] Dielissen, J., Huisken, J., *Implementation Issues of 3rd Generation Mobile Communication Turbo Decoding*, Twenty-first SITB (Wassenaar), pp. 9–16, 2000.
- [433] Janssen, A.J.E.M., Koppelaar, A.G.C., *Box-Functions and Mismatched Log-Likelihood Ratios*, Twenty-first SITB (Wassenaar), pp. 17–24, 2000.
- [434] Muurling, G., Kleihorst, R.P., Benschop, N.F., Vleuten, R. van der, Simonis, J., *Error Correction for Combinational Logic Circuits*, Twenty-first SITB (Wassenaar), pp. 25–31, 2000.
- [435] Balakirsky, V.B., *An Upper Bound on the Expected Number of Computations for Maximum Likelihood Decoding of Low-Density Codes*, Twenty-first SITB (Wassenaar), pp. 285–292, 2000.
- [436] Martirosyan, S., Vinck, A.J.H., *On Optical Orthogonal Code Constructions with Correlation 1*, Twenty-second SITB (Enschede), pp. 53–57, 2001.
- [437] Weber, J.H., Abdel-Ghaffar, K.A.S., *Error-Correction Radius of Reduced GMD Decoders*, Twenty-second SITB (Enschede), pp. 107–114, 2001.
- [438] Dijk, M. van, Baggen, S., Tolhuizen, L.M.G.M., *Coding for Informed Decoders*, Twenty-second SITB (Enschede), pp. 123–128, 2001.
- [439] Desset, C., *Error Control Coding for Wireless Personal Area Networks*, Twenty-third SITB (Louvain-La-Neuve), 2002.
- [440] Tolhuizen, L.M.G.M., Hekstra, A., Cai, N., Baggen, S., *Two Aspects of Coding for Informed Decoders*, Twenty-third SITB (Louvain-La-Neuve), pp. 25–28, 2002.
- [441] Steendam, H., Moeneclaey, M., *ML-Performance of Low-Density Parity Check Codes*, Twenty-third SITB (Louvain-La-Neuve), pp. 75–77, 2002.
- [442] Kossen, F., Weber, J., *Performance Analysis of Limited-Trial Chase Decoders*, Twenty-third SITB (Louvain-La-Neuve), pp. 79–86, 2002.
- [443] Piret, P., Le Bars, P., Le Dantec, C., *Efficient Algebraic Interleavers for Turbocodes*, Twenty-third SITB (Louvain-La-Neuve), pp. 293–297, 2002.
- [444] Delsarte, Ph., *The Hamming Space Viewed as an Association Scheme*, Twenty-third SITB (Louvain-La-Neuve), pp. 329–380, 2002.
- [445] Sloane, N., *Recent Progress on Self-Dual Codes and Orthogonal Arrays*, Twenty-third SITB (Louvain-La-Neuve), p. 381, 2002.
- [446] Sudan, M., *List Decoding Algorithms: a Survey*, Twenty-third SITB (Louvain-La-Neuve), p. 383, 2002.
- [447] Hekstra, Andries P., *Set Decoding of Convolutional Codes with Application to GSM/GPRS*, Twenty-fourth SITB (Veldhoven), p. 9–16, 2003.
- [448] Baggen, S., S. Egner, and B. Vandewiele, *On the Use of the Cut-Off Rate for Determining Optimal Input Quantization of a Viterbi Decoder on Fading Channels*, Twenty-fourth SITB (Veldhoven), pp. 17–26, 2003.
- [449] Weber, J.H., *Static and Dynamic Chase-Like Bounded Distance Decoding*, Twenty-fourth SITB (Veldhoven), pp. 27–34, 2003.
- [450] Baggen, S., and Balakirsky, V.B., *An Efficient Algorithm for Computing the Entropy of Output Sequences for Bitshift Channels*, Twenty-fourth SITB (Veldhoven), pp. 157–164, 2003.

### WIC Symposium Communication and Modulation Papers

- [451] Bergmans, J.W.M., *Correlative Level Decision Feedback Equalization*, Seventh SITB (Noordwijkerhout), pp. 161–170, 1986.
- [452] Bergmans, J.W.M., Jansen, A.J.E.M., *Robust Decision-Feedback Equalization*, Eight SITB (Deventer), pp. 29–36, 1987.

- [453] Wolf, J.K., *Coding for Digital Recording Systems*, Ninth SITB (Mierlo), pp. 31, 1988.
- [454] Schouhamer Immink, K.A., *Graceful Degradation of Digital Sound Reproduced from Magnetic Recording Channels*, Ninth SITB (Mierlo), pp. 33-39, 1988.
- [455] Dekker, H.J., Smit, G., *Multi-Dimensional Trellis-Coded Modulation*, Ninth SITB (Mierlo), pp. 41-47, 1988.
- [456] Vleuten, R.J. van der, Schouhamer Immink, K.A., *A Maximum-Likelihood Detector for a Class IV Partial Response Magnetic Recording System*, Tenth SITB (Houthalen), pp. 117-123, 1989.
- [457] Giannakouros, N.P., Laloux, A., *Waiting-Time Approximations for Service Systems with a Polling Table*, Tenth SITB (Houthalen), pp. 139-145, 1989.
- [458] Bot, P.G.M. de, Vinck, A.J., *Bandwidth Efficient Coding/Modulation with Low-Complexity Detection/Decoding*, Eleventh SITB (Noordwijkerhout), pp. 1-7, 1990.
- [459] Bergmans, J.W.M., *On the SNR Merits of Run-Length-Limited Codes in Feedback-Equalized Digital Recording Systems*, Eleventh SITB (Noordwijkerhout), pp. 8-14, 1990.
- [460] Giannakouros, N.P. and Laloux, A., *Optimization of Service Systems with Deterministic Polling via the Pseudoconservation Law*, Eleventh SITB (Noordwijkerhout), pp. 133-139, 1990.
- [461] Bergmans, J.W.M., *Effect of Binary Modulation Codes with Rate  $R=1/n$  on Equivalent Discrete-Time Models for Channels with Intersymbol Interference*, Twelfth SITB (Veldhoven), pp. 71-78, 1991.
- [462] Bot, P.G.M. de, *A Simple Phase Recovery Algorithm for M-PSK with Asymptotically Maximum Likelihood Detection*, Twelfth SITB (Veldhoven), pp. 121-128, 1991.
- [463] Camkerten, H., Arnbak, J.C., Sankur, B., *Optimum Single-User Coherent and Partially Coherent BPSK Receiver Design and Exact Performance Analyses for CDMA Uncorrelated Rayleigh Fading Channels*, Thirteenth SITB (Enschede), pp. 73-80, 1992.
- [464] Linden, O.L. van der, Bot, P.G.M. de, Baggen, C.P.M.J., *Performance Analysis of 2-DPSK with Non-Coherent Detection on a Ricean Fading Channel*, Fourteenth SITB (Veldhoven), pp. 198-205, 1993.
- [465] Prasad, R., *An Overview of Code Division Multiple Access Techniques for Universal Personal Communications Networks*, Fourteenth SITB (Veldhoven), pp. 206-213, 1993.
- [466] Prasad, R., Jansen, M.G., Deursen, J.P. van, *Frequency Hopping Slotted Aloha in a Shadowed Radio Environment*, Fourteenth SITB (Veldhoven), pp. 214-221, 1993.
- [467] Ribeiro, M.A., *Optimal Bit-Level Synchronization Strategy for Magnetic Recorders*, Fourteenth SITB (Veldhoven), pp. 222-227, 1993.
- [468] Linden, O.L. van, *A Multipath Channel Model for Analytical Evaluation of Coded OFDM-Based Transmission Scheme*, Fourteenth SITB (Veldhoven), pp. 228-235, 1993.
- [469] Koppelaar, A.G.C., *Matrix Equalization for OFDM Systems*, Fourteenth SITB (Veldhoven), pp. 236-243, 1993.
- [470] Bot, P.G.M. de, *Antenna Diversity with Narrow Band Combining*, Fourteenth SITB (Veldhoven), pp. 244-251, 1993.
- [471] Rodrigues, A.J., Vandendorpe, L., Albuquerque, A.A., *Direct-Sequences CDMA Multi-H Cpm in Indoor Mobile Radio Systems with Post-Detection Diversity*, Fifteenth SITB (Louvain-La-Neuve), pp. 138-145, 1994.

- [472] Siala, M., Kawas Kaleh, G., *Cut-Off of the One-Track Partial Response Magnetic Recording Channel*, Fifteenth SITB (Louvain-La-Neuve), pp. 146-151, 1994.
- [473] Van De Wiel, O., Vandendorpe, L., *A Comparison of Bidimensional RLS and LMS Linear Equalization for OFDM/DS Transmission in an Indoor Environment*, Fifteenth SITB (Louvain-La-Neuve), pp. 152-159, 1994.
- [474] Ruzinko, M., Vanroose, P., *A Collision Resolution Protocol of Throughput One, Using Multiplicity Feedback*, Fifteenth SITB (Louvain-La-Neuve), pp. 168-174, 1994.
- [475] Vvedenskaya, N.D., *Distribution of Message Delay in a Network with Many Multiple Routes*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 49-52, 1995.
- [476] Arnbak, J.C., *Between Information Theory and Communication Practice: Observations from a Stranger*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 133-134, 1995.
- [477] Jacquemin, P., Rodriques, A.J., Vandendorpe, L., *Multi-H DS-CDMA in Multipath Rayleigh Fading Channels with Multiuser Interference*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 135-142, 1995.
- [478] Krapels, M.J., Jansen, G.J.M., *Comparison of BER Performance of Different Detectors for a Narrowband BPSK Dual-Signal Receiver with Co-Channel Interference Cancellation*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 143-150, 1995.
- [479] Vvedenskaya, N.D., Linnartz, J.P.M.G., *Performance of Stack Algorithms in Case of Mutually Interfering Transmissions in Two Cells*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 159-166, 1995.
- [480] Bart, B. de, Willems, F.M.J., *Combining Enumerative Shaping Techniques and Block Coded Modulation for ISI Channels*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 167-174, 1995.
- [481] Vvedenskaya, N.D., *An Example of Optimal Message Routing in a Complete-Graph Network Model*, Seventeenth SITB (Enschede), pp. 65-72, 1996.
- [482] Bargh, M.S., Schalkwijk, J.P.M., *Feedback Coded Modulation*, Eighteenth SITB (Veldhoven), pp. 41-48, 1997.
- [483] Boxma, O., *Invited Lecture 2: Stochastic Networks*, Nineteenth SITB (Veldhoven), pp. 173-176, 1998.
- [484] Levendovsky, J., Elek, Zs., Meulen, E.C. van der, *CAC Based on Queuing Models in ATM Networks*, Nineteenth SITB (Veldhoven), pp. 177-184, 1998.
- [485] Gerrits, A., Koppelaar, A., Taori, R., Sluijter, R., Baggen, C., Hekstra-Nowacka, E., *Proposal for an Adaptive Multi-Rate Coder for GSM*, Twentieth SITB (Haasrode), pp. 133-140, 1999.
- [486] Peek, J.B.H., *Multirate Block Codes*, Twentieth SITB (Haasrode), pp. 205-214, 1999.
- [487] Bakker, J.-D., Schoute, F.C., *LART: Design and Implementation of an Experimental Wireless Platform*, Twenty-first SITB (Wassenaar), pp. 63-70, 2000.
- [488] Vinck, A.J.H., *Codes for Frequency Hopping Communication*, Twenty-first SITB (Wassenaar), pp. 147-154, 2000.
- [489] Heideman, G., *A Generalization of a Coherence Multiplex System*, Twenty-first SITB (Wassenaar), pp. 155-156, 2000.
- [490] Jansen, G.J.M., Slimana, S.B., *BER Results for a Narrowband Multiuser Receiver Based on Successive Subtraction for M-PSK Modulated Signals*, Twenty-first SITB (Wassenaar), pp. 157-164, 2000.
- [491] Haartsen, J.C., *Embedded Connectivity with Bluetooth*, Twenty-second SITB (Enschede), pp. 15, 2001.
- [492] Levendovszky, J., Fancsali, A., Vegso, Cs., Meulen, E.C. van der, *CNN Based Algorithm for QoS Routing with Incomplete Information*, Twenty-second SITB (Enschede), pp. 45-52, 2001.

- [493] Meijerink, A., Heideman, G.H.L.M., Etten, W.C. van, *Generalization and Performance Improvement of a Coherence Multiplexing System*, Twenty-second SITB (Enschede), pp. 59-68, 2001.
- [494] Tang, F., Deneire, L., Engels, M., *On the Optimal Switching Scheme of Link Adaptation*, Twenty-second SITB (Enschede), pp. 69-76, 2001.
- [495] Gorokhov, A., Dijk, M. van, *Optimised Labelings for Bit-Interleaved Coded Modulation Schemes with Iterative Demodulation*, Twenty-second SITB (Enschede), pp. 157-164, 2001.
- [496] Vitale, G., Stassen, M.L.A., Colak, S.B., Pronk, V., *Multipath Diffuse Routing over Heterogeneous Mesh Networks of Web Devices and Sensors*, Twenty-third SITB (Louvain-La-Neuve), pp. 1-8, 2002.
- [497] Vanhaverbeke, F., Moeneclaey, M., *Sum Capacity of the OCDMA/OCDMA Signature Sequence Set with Unequal Power Constraints*, Twenty-third SITB (Louvain-La-Neuve), pp. 97-105, 2002.
- [498] Bargh, M., Eijk, R. van, Salden, A., *Brokerage of Next Generation Mobile Services*, Twenty-third SITB (Louvain-La-Neuve), pp. 247-254, 2002.
- [499] Tauboeck, G., *Rotationally Variant Complex Channels*, Twenty-third SITB (Louvain-La-Neuve), pp. 261-268, 2002.
- [500] Meijerink, A., Heideman, G., Etten, W. van, *BER Analysis of a DPSK Phase Diversity Receiver for Coherence Multiplexing*, Twenty-third SITB (Louvain-La-Neuve), pp. 269-276, 2002.
- [501] Levendovszky, J., Kovacs, L., Meulen, E.C. van der, *A New Blind Signal Processing Algorithm for Channel Equalization*, Twenty-third SITB (Louvain-La-Neuve), pp. 277-284, 2002.
- [502] Levendovszky, J., David, T., Meulen, E.C. van der, *Optimal Stochastic Timers for Feedback Mechanisms in Multicast Communications*, Twenty-third SITB (Louvain-La-Neuve), pp. 285-292, 2002.
- [503] Calderbank, R., *Combinatorics, Quantum Computing and Cellular Phones*, Twenty-third SITB (Louvain-La-Neuve), pp. 384, 2002.
- [504] Houtum, W. van, *On Understanding the Performance of the IEEE 802.11A WLAN Physical Layer for the Gaussian Channel*, Twenty-fourth SITB (Veldhoven), pp. 1-8, 2003.
- [505] Riani, J., J.W.M. Bergmans, S.J.L. van Beneden, W.M.J. Coene, and A.H.J. Immink, *Equalization and Target Response Optimisation for High-Density Two-Dimensional Optical Storage*, Twenty-fourth SITB (Veldhoven), pp. 141-148, 2003.
- [506] De Lathauwer, L., J. Vandewalle, and B. De Moor, *An Algebraic Technique for Blind MIMO Deconvolution of Constant Modulus*, Twenty-fourth SITB (Veldhoven), pp. 203-210, 2003.
- [507] De Lathauwer, L. A. De Baynast, J. Vandewalle, and B. De Moor, *New Algebraic Techniques for the Separation of DS-CDMA Signals*, Twenty-fourth SITB (Veldhoven), pp. 211-218, 2003.
- [508] Cendrillon, R., O. Rousseaoux, M. Moonen, E. van den Bogaert, and J. Verlinden, *Power Allocation and Optimal TX/RX Structures for MIMO Systems*, Twenty-fourth SITB (Veldhoven), pp. 219-226, 2003.
- [509] Janssen, G.J.M, *A Power-Efficient Compound Modulation Scheme for Addressing Multiple Users in the Downlink*, Twenty-fourth SITB (Veldhoven), pp. 227-234, 2003.



- [510] Levendovsky, J., L. Kovacs, A. Olah, D. Varga, and E.C. van der Meulen, *Novel Sampling Method for Increased Spectral Efficiency in Wireless Communication Systems*, Twenty-fourth SITB (Veldhoven), pp. 235-242, 2003.

### WIC Symposium Estimation and Detection Papers

- [511] Backer, E., *Over Minimale Vervorming in een Gelijksortigheidsrelaties bij Classifieren Zonder Leraar*, First SITB (Zoetermeer), pp. 7-22, 1980.
- [512] Boel, Rene K., *Optimale Schatting van een Diffusieproces dat de Intensiteit van een Waargenomen Poissonproces Bepaalt*, First SITB (Zoetermeer), pp. 33-37, 1980.
- [513] Duin, R.P.W., *Needs and Possibilities of Using a Priori Knowledge in Pattern Recognition*, First SITB (Zoetermeer), pp. 47-51, 1980.
- [514] Kwakernaak, H., *Estimation of Pulse Heights and Arrival Times*, First SITB (Zoetermeer), pp. 53, 1980.
- [515] Schuppen, J.H. van, *Enkele Schattings- en Detectieproblemen*, First SITB (Zoetermeer), pp. 83-84, 1980.
- [516] Veelenturf, L.P.J., *Adaptive Identification of Sequential Machines*, First SITB (Zoetermeer), pp. 99-103, 1980.
- [517] Duin, R.P.W., *Small Sample Size Considerations in Discriminant Analysis*, Second SITB (Zoetermeer), pp. 49-52, 1981.
- [518] Kemp, B., *Schatting en Detectie van Sprongsgewijze Veranderingen in het Electro-Encefalogram: Een Martingaal Aanpak*, Second SITB (Zoetermeer), pp. 71-76, 1981.
- [519] Gröneveld, E.W., Kleima, D., *Enkele Opmerkingen over M-Voudige Detectie*, Third SITB (Zoetermeer), pp. 29-37, 1982.
- [520] Schripsema, J., Veelenturf, L.P.J., *Petri-Netwerken Als Representatie voor Lerend Gedrag*, Third SITB (Zoetermeer), pp. 125-132, 1982.
- [521] Kemp, B., Jaspers, P., *Optimal Detection of a Finite-State Markov Brain Process, Based on Vector EEG Observations*, Fifth SITB (Aalten), pp. 102-108, 1984.
- [522] Kleima, D., *Invarianten, waaronder 'Shift-Invariant Functions'*, Fifth SITB (Aalten), pp. 109, 1984.
- [523] Liefhebber, F., *Minimum Information and Parametric Modelling*, Sixth SITB (Mierlo), pp. 13-25, 1985.
- [524] Moddemeyer, R., *Estimation of Entropy and Mutual Information of Continuous Distribution*, Sixth SITB (Mierlo), pp. 27-34, 1985.
- [525] Bergmans, J., *Equalization, Detection and Channel Coding for Digital Transmission and Recoding Systems*, Sixth SITB (Mierlo), pp. 161-169, 1985.
- [526] Backer, E., Eijlers, E.J., *CLUSANI: A Knowledge Base for Cluster Analysis*, Seventh SITB (Noordwijkerhout), pp. 113-120, 1986.
- [527] Moddemeijer, R., *An ARMA Model Identification Algorithm*, Seventh SITB (Noordwijkerhout), pp. 151-159, 1986.
- [528] Kemp, B., *Optimal Detection of the Rapid-Eye-Movement Brain State*, Seventh SITB (Noordwijkerhout), pp. 175-182, 1986.
- [529] Moddemeijer, R., *From Maximum Likelihood to an Entropy Estimate*, Eighth SITB (Deventer), pp. 86-92, 1987.
- [530] Backer, E., Lubbe, J.C.A. van der, Krijgsman, W., *On Modelling of Uncertainty and Inexactness in Expert Systems*, Ninth SITB (Mierlo), pp. 101-111, 1988.
- [531] Moddemeijer, R., *An Information Theoretical Delay Estimator*, Ninth SITB (Mierlo), pp. 121-128, 1988.

- [532] De Wilde, Ph., *A Marquardt Learning Algorithm for Neural Networks*, Tenth SITB (Houthalen), pp. 51-57, 1989.
- [533] Coolen, A.C.C., Kuyk, F.W., *A Learning Mechanism for Invariant Pattern Recognition in Neural Networks*, Tenth SITB (Houthalen), pp. 59-65, 1989.
- [534] Piret, Ph., *Some Properties of a Modified Hebbian Rule*, Tenth SITB (Houthalen), pp. 67-72, 1989.
- [535] Verleysen, M., Martin, D., Jespers, P., *A Capacitive Neural Network for Associative Memory*, Tenth SITB (Houthalen), pp. 73-79, 1989.
- [536] Vandenberghe, L., Vandewalle, J., *Dynamic Properties of Neural Networks*, Tenth SITB (Houthalen), pp. 81-88, 1989.
- [537] Moddemeijer, R., Gröneveld, E.W., *Testing Composite Hypotheses*, Tenth SITB (Houthalen), pp. 133-138, 1989.
- [538] Kleihorst, R.P., Hoeks, W.L.M., *Fuzzy OCR*, Eleventh SITB (Noordwijkerhout), pp. 81-88, 1990.
- [539] Backer, E., *Approximate Reasoning in Exploratory Data Analysis*, Eleventh SITB (Noordwijkerhout), pp. 115, 1990.
- [540] Vanroose, P., *Optimal Decision Trees and Test Algorithms*, Twelfth SITB (Veldhoven), pp. 25-31, 1991.
- [541] Heideman G.H.L.M., *Realization of a Maximum Likelihood Classifier by a Learning Process*, Thirteenth SITB (Enschede), pp. 89, 1992.
- [542] Lankhorst, M.M., Moddemeijer, R., *Automatic Word Categorization: an Information-Theoretic Approach*, Fourteenth SITB (Veldhoven), pp. 62-69, 1993.
- [543] Bruin, F.F.G. de, *How a Feedforward Neural Network Classifies*, Fifteenth SITB (Louvain-La-Neuve), pp. 219-227, 1994.
- [544] Levendovszky, J., Mommaerts, W., E.C. van der Meulen, *General Tolerance Analysis for Neural Networks*, Fifteenth SITB (Louvain-La-Neuve), pp. 228-234, 1994.
- [545] Vanroose, P., Van Gool, L., Oosterlinck, A., *A Bottom-Up Approach to Pattern Classification*, Fifteenth SITB (Louvain-La-Neuve), pp. 235-242, 1994.
- [546] Levendovszky, J., E.C. van der Meulen, Pozsgai, P., *Tail Estimation by Statistical Bounds and Neural Networks*, Seventeenth SITB (Enschede), pp. 137-145, 1996.
- [547] Hupkens, E.P., *On the Quickest Detection of Changes in Random Fields*, Seventeenth SITB (Enschede), pp. 147-152, 1996.
- [548] Berlinet, A., Györfi, L., E.C. van der Meulen, *The Asymptotic Normality of Centered Information-Divergence in Density Estimation*, Seventeenth SITB (Enschede), pp. 153-157, 1996.
- [549] Cremer, F., Veelenturf, L.P.J., *Statistical Signal Detection and Kohonen's Neural Network*, Eighteenth SITB (Veldhoven), pp. 9-16, 1997.
- [550] Hupkens, E.P., *Quickest Detection in Random Fields: a Bayesian Approach*, Eighteenth SITB (Veldhoven), pp. 17-24, 1997.
- [551] Slump, C.H., *Applications of Information Theory in Optics*, Eighteenth SITB (Veldhoven), pp. 142-149, 1997.
- [552] Moddemeijer, R., *Testing Composite Hypotheses Applied to AR Order Estimation: the Akaike-Criterion Revised*, Nineteenth SITB (Veldhoven), pp. 149-156, 1998.
- [553] Levendovsky, J., Meszaros, A., E.C. van der Meulen, *Neuron Based Penalty Function Classifiers*, Nineteenth SITB (Veldhoven), pp. 157-164, 1998.
- [554] Moddemeijer, R., *An Efficient Algorithm for Selecting Optimal Configurations of AR-Coefficients*, Twentieth SITB (Haasrode), pp. 189-196, 1999.

- [555] Someren, E.P. van, Wessels, L.F.A., Reinders, M.J.T., *Information Extraction for Modeling Gene Expressions*, Twenty-first SITB (Wassenaar), pp. 215-222, 2000.
- [556] Moddemeijer, R., *The Distribution of Entropy Estimators Based on Maximum Mean Log-Likelihood*, Twenty-first SITB (Wassenaar), pp. 231-238, 2000.
- [557] Levendovszky, J., Kovács, L., Jeney, G., E.C. van der Meulen, *A New Blind Signal Processing Algorithm for Multi-User Detection*, Twenty-second SITB (Enschede), pp. 17-24, 2001.
- [558] Vellekoop, M.H., *Suboptimal Approximations in Simultaneous Detection and Estimation Problems*, Twenty-second SITB (Enschede), pp. 25-32, 2001.
- [559] Reinders, M.J.T., *Analyzing DNA Microarrays to Unravel Gene Function*, Twenty-fourth SITB (Veldhoven), pp. 35-36, 2003.
- [560] Veldhuis, R., Bazen, A., and Boersma, M., *Biometric Verification: a Result and an Exotic Example*, Twenty-fourth SITB (Veldhoven), pp. 109-116, 2003.
- [561] Goseling, J., Baggen, S., Akkermans, T., *Verification Using Partially Known Biometrics*, Twenty-fourth SITB (Veldhoven), pp. 117-124, 2003.

### WIC Symposium Signal Processing and Restoration Papers

- [562] Biemond, J., *Recursive Image Models and Model Quality*, First SITB (Zoetermeer), pp. 23-28, 1980.
- [563] Spek, G.A. van der, *The Management of Radar Energy and Time in a Phased-Array Radar System*, First SITB (Zoetermeer), pp. 85-91, 1980.
- [564] Biemond, J., *Beeldreconstructie als Lineair Filterprobleem (in Dutch)*, Second SITB (Zoetermeer), pp. 5-23, 1981.
- [565] Blom, H.A.P., *Implementable Differential Equations for Non-Linear Filtering*, Second SITB (Zoetermeer), pp. 41-48, 1981.
- [566] Gerbrands, J.J., *Beeldsegmentatie m.b.v. Probabilistische Relaxatie-Procedures*, Second SITB (Zoetermeer), pp. 53-61, 1981.
- [567] Heideman, G.H.L.M., *Een Beeldbeschrijvingsmodel, Gebaseerd op de Structuur van de Primaire Visuele Cortex: Een Waarnemer Gerichte Codeermethode (in Dutch)*, Second SITB (Zoetermeer), pp. 63-69, 1981.
- [568] Heideman, G.H.L.M., Veldhuis, R.N.J., *Een Signaaltheoretisch Model voor de Primaire Visuele Cortex; een Beeldbeschrijvingsmodel (in Dutch)*, Third SITB (Zoetermeer), pp. 39-45, 1982.
- [569] Kruisbrink, J.C., *Een Parser voor Matrix-Array Grammatikas, Toegepast op Segmentering van Celklompjes (in Dutch)*, Third SITB (Zoetermeer), pp. 47-62, 1982.
- [570] Rompelman, O., *Hartritme-Variabiliteit: Meting, Analyse en Interpretatie*, Third SITB (Zoetermeer), pp. 93-102, 1982.
- [571] Slump, C.H., Ferwerda, H.A., Hoeders, B.J., *Informatie-Theoretische Aspecten Lage-Dosis Elektronenmicroscopie (in Dutch)*, Third SITB (Zoetermeer), pp. 133-140, 1982.
- [572] Veldhuis, R.N.J., Heideman, G.H.L.M., *Een Bemonsteringsmodel voor Ruimtelijk Begrensde Twee-Dimensionale Signalen (in Dutch)*, Third SITB (Zoetermeer), pp. 1141-1155, 1982.
- [573] Mars, N.J.I., *An Estimator for Delay Times in a Non-Linear Biological System*, Fourth SITB (Haasrode), pp. 67-73, 1983.
- [574] Rompelman, O., *The Assessment of the Bandwidth of Trigger Related Waveforms*, Fourth SITB (Haasrode), pp. 75-81, 1983.

- [575] Slump, C.H., Hoenders, B.J., Ferwerda, H.A., *The Determination of the Global Extremum of a Function of Several Variables*, Fourth SITB (Haasrode), pp. 83-91, 1983.
- [576] Haas, H.P.A., *Digital Convexity and Straightness on the Hexagonal Grid*, Fourth SITB (Haasrode), pp. 103-114, 1983.
- [577] Heideman, G.H.L.M., *An Implicit Sampling Model for Images*, Fourth SITB (Haasrode), pp. 115-120, 1983.
- [578] Boekee, D.E., Helden, J. van, *Some Properties of Spectral Distortion Measures*, Fourth SITB (Haasrode), pp. 129-136, 1983.
- [579] Wiersma, H., *Bounds on the Sampling Rate for Short-Time Narrowband Signals*, Fourth SITB (Haasrode), pp. 93-102, 1983.
- [580] Koenderink, J.J., *Simultaneous Order in the Visual System*, Fifth SITB (Aalten), pp. 5-10, 1984.
- [581] Biemond, J., Katsaggelos, A.K., *Iterative Restoration of Noisy Blurred Images*, Fifth SITB (Aalten), pp. 11-20, 1984.
- [582] Gerbrands, J.J., Backer, E., *Split-And-Merge Segmentation of SLAR-Imagery: Consistency Problems*, Fifth SITB (Aalten), pp. 64-72, 1984.
- [583] Slump, C.H., Ferwerda, H.A., Hoenders, B.J., *Some (Information Theoretical) Aspects of Low-Dose Electron Microscopy*, Fifth SITB (Aalten), pp. 152-161, 1984.
- [584] Veldhuis, R.N.J., Jansen, A.J.E.M., Vries, L.B., *Adaptive Restoration of Unknown Samples in Time-Discrete Signals*, Fifth SITB (Aalten), pp. 178-186, 1984.
- [585] Lohmann, A.W., *Digital Optical Computing*, Sixth SITB (Mierlo), pp. 9-12, 1985.
- [586] Gerbrands, J.J., Backer, E., Hoeven, W.A.G. van der, *Edge Detection by Dynamic Programming*, Sixth SITB (Mierlo), pp. 35-42, 1985.
- [587] Otterloo, P.J. van, Rohra, K., Veldhuis, R.N.J., *Motion Blur Due to Field Rate Conversion of Television Signals*, Sixth SITB (Mierlo), pp. 81-89, 1985.
- [588] Woods, J.W., *Doubly Stochastic Gaussian Random Field Models for Image Estimation*, Seventh SITB (Noordwijkerhout), pp. 21-29, 1986.
- [589] Spek, G.A. van der, *Inverse Synthetic Aperture Radar (ISAR)*, Seventh SITB (Noordwijkerhout), p. 61, 1986.
- [590] Mieghem, E.F.P. van, Gerbrands, J.J., Backer, E., *Three-Dimensional Object Recognition by Using Stereo Vision*, Seventh SITB (Noordwijkerhout), pp. 89-93, 1986.
- [591] Gerbrands, J.J., Backer, E., Cheng, X.S., *Multiresolutional Cluster/Relaxation in Segmentation*, Seventh SITB (Noordwijkerhout), pp. 95-102, 1986.
- [592] Lagendijk, R.L., Biemond, J., *Regularized Iterative Image Restoration*, Seventh SITB (Noordwijkerhout), pp. 103-111, 1986.
- [593] Rompelman, O., *Event Series Processing: a Signal Analysis Approach*, Seventh SITB (Noordwijkerhout), pp. 171-174, 1986.
- [594] Backer, E., Gerbrands, J.J., *A Flexible and Intelligent System for Fast Measurements in Binary Images for In-Line Robotic Control*, Eight SITB (Deventer), pp. 6-20, 1987.
- [595] Braadbaart, J., Kamminga, C., *On Several Definitions of Time Resolution Applied to Bio-Sonar*, Eight SITB (Deventer), pp. 53-60, 1987.
- [596] Heideman, G.H.L.M., Hoeksema, F.W., Tattje, H.E.P., *Multi-Channel Sampling (Abstract)*, Eight SITB (Deventer), p. 68, 1987.
- [597] Kamminga, C., *Structural Information Theory of Bio-Sonar; the Odontocete Echolocation Signal (Abstract)*, Eight SITB (Deventer), p. 77, 1987.
- [598] Lagendijk, R.L., Biemond, J., Boekee, D.E., *Iterative Nonlinear Image Restoration*, Eight SITB (Deventer), pp. 78-85, 1987.

- [599] Verbakel, J.M.M., *SILAGE, a Description and Simulation Language for Digital Signal Processing*, Ninth SITB (Mierlo), pp. 67–73, 1988.
- [600] Gerbrands, J.J., Backer, E., Hoogeboom, P., Kleijweg, J., *Segmentation of SLAR Imagery Guided by a Prior Knowledge*, Ninth SITB (Mierlo), pp. 81–87, 1988.
- [601] Lagendijk, R.L., Biemond, J., *Maximum Likelihood Identification and Restoration of Blurred*, Ninth SITB (Mierlo), pp. 97–103, 1988.
- [602] Chen, J., Vandewalle, J.P.L., *A Comparison Between Adaptive IIR and Adaptive FIR Filter*, Ninth SITB (Mierlo), pp. 163–169, 1988.
- [603] Callaerts, D., Vandewalle, J., *The Use of SVD-Based Techniques for Signal Separation*, Tenth SITB (Houthalen), pp. 109–115, 1989.
- [604] Slump, C.H., *On the Prediction of the Optimal Exposure Timing from ECG Data in Digital Subtraction Angiography (DSA)*, Tenth SITB (Houthalen), pp. 125–131, 1989.
- [605] Lagendijk, R.L., Biemond, J., *Advances in the Identification of Noisy Blurred Images*, Eleventh SITB (Noordwijkerhout), pp. 97–103, 1990.
- [606] Vlucht, M.J. van der, *PC-Protocol: a System for Collecting and Correcting Ethological Data*, Eleventh SITB (Noordwijkerhout), pp. 116–117, 1990.
- [607] Moddemeijer, R., *Sampling and Linear Algebra*, Eleventh SITB (Noordwijkerhout), pp. 118–125, 1990.
- [608] Haan, H.G. de, Slump, C.H., *On the Reduction of Alias Distortion in Digital Signal Processing*, Eleventh SITB (Noordwijkerhout), pp. 126–132, 1990.
- [609] Kamminga, C., *Some Results on Time Resolution in Delphinid Sonar*, Eleventh SITB (Noordwijkerhout), p. 140, 1990.
- [610] Beck, W., *Frequency Estimation by Iterated Total Least Squares*, Eleventh SITB (Noordwijkerhout), pp. 141–147, 1990.
- [611] Wurf, P. van der, *Statistical Analysis of Synchronous Random Pulse Trains by Means of Hybrid Correlation Functions*, Eleventh SITB (Noordwijkerhout), pp. 148–154, 1990.
- [612] Kleihorst, R.P., Lagendijk, R.L., Biemond, J., *Non-Linear Filtering of Image Sequences Using Order Statistics*, Twelfth SITB (Veldhoven), pp. 49–55, 1991.
- [613] Slump, C.H., *On the Reduction of Moiré Pattern Distortion in Digital Diagnostic X-Ray Imaging*, Twelfth SITB (Veldhoven), pp. 57–62, 1991.
- [614] Laan, M.D. van der, *Towards Alternative Strategies for Signal-Sampling*, Thirteenth SITB (Enschede), pp. 81–88, 1992.
- [615] Lubbers, A.P.G., Slump, C.H., Storm, C.J., *Digital Densitometric Determination of Relative Coronary Flow Distributions*, Thirteenth SITB (Enschede), pp. 181–188, 1992.
- [616] Hoeksema, F.W., *Two Solutions to the Problem of Matrixing for Non-Ideal Camera Transmission Filters*, Thirteenth SITB (Enschede), pp. 189–196, 1992.
- [617] Kleihorst, R.P., Haan, G. de, Lagendijk, R.L., Biemond, J., *Noise Filtering of Image Sequences with Double Compensation for Motion*, Thirteenth SITB (Enschede), pp. 197–204, 1992.
- [618] Cohen Stuart, A.B., *Correlating Two Sonar Signals with Different Dominant Frequencies*, Fifteenth SITB (Louvain-La-Neuve), pp. 132–137, 1994.
- [619] Cohen Stuart, A.B., Kamminga, C., *Modelling the Polycyclic Sonar Waveform of the Phocena Phocena Using Gabor's Elementary Signal*, Fifteenth SITB (Louvain-La-Neuve), pp. 160–167, 1994.

- [620] Piret, P., *Caricatures by Means of Informational Divergence*, Fifteenth SITB (Louvain-La-Neuve), p. 218, 1994.
- [621] Simon, B., *Smooth Non-Symmetrical Interpolation Functions for Quadtree Representation of Images*, Fifteenth SITB (Louvain-La-Neuve), pp. 252–258, 1994.
- [622] Kamminga, C., Bruin, M.G. de, *A Time-Frequency Entropy Measure of Uncertainty Applied to Echolocation Signals*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 89–98, 1995.
- [623] Vanroose, P., Van Gool, L., Oosterlinck, A., *Localization and Identification of Plane Objects in a Complex Scene*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 99–105, 1995.
- [624] Hanjalic, A., Lagendijk, R.L., Biemond, J., *Achievements and Challenges in Visual Search of Video*, Seventeenth SITB (Enschede), pp. 159–165, 1996.
- [625] Bruijn, F.J. de, Schrijver, M., Slump, C.H., *Compression of Cardiac X-Ray Images Based on Acquisition Noise*, Nineteenth SITB (Veldhoven), pp. 45–52, 1998.
- [626] Vanroose, P., *Information Flow and Spatial Locality of Image Processing Operators*, Nineteenth SITB (Veldhoven), pp. 53–57, 1998.
- [627] Slump, C.H., *On Information Theoretical Aspects of Speech Transmission*, Nineteenth SITB (Veldhoven), pp. 127–134, 1998.
- [628] Hermus, K., Wambacq, P., Van Compernelle, D., *Improved Noise Robustness for Speech Recognition by Adaptive SVD-Based Filtering*, Twentieth SITB (Haasrode), pp. 117–124, 1999.
- [629] Slump, C.H., Bont, T. de, Mertens, A.M., Verwey, K., *On the Objective Speech Quality of the TETRA System*, Twentieth SITB (Haasrode), pp. 125–132, 1999.
- [630] Demuynck, K., Wambacq, P., *Linear Feature Transformations Based on MCE and MMI*, Twentieth SITB (Haasrode), pp. 141–148, 1999.
- [631] Lerouge, E., Van Huffel, S., *Generalization Capacity of Neural Networks for the Classification of Ovarium Tumours*, Twentieth SITB (Haasrode), pp. 149–156, 1999.
- [632] Mindru, F., Moons, T., Van Gool, L., *Generalized Moment Invariants for Viewpoint and Illumination Independent Color Pattern Recognition*, Twentieth SITB (Haasrode), pp. 157–164, 1999.
- [633] Lagendijk, R.L., *The TU Delft Research Program 'Ubiquitous Communications'*, Twenty-first SITB (Wassenaar), pp. 33–43, 2000.
- [634] Pasman, W., Jansen, F.W., *Latency Layered Rendering for Mobile Augmented Reality*, Twenty-first SITB (Wassenaar), pp. 45–54, 2000.
- [635] Persa, S., Jonker, P., *Human-Computer Interaction Using Real-Time 3D Hand Tracking*, Twenty-first SITB (Wassenaar), pp. 71–75, 2000.
- [636] Vos, K., Heusdens, R., *Rate-Distortion Optimal Exponential Modeling of Audio and Speech Signals*, Twenty-first SITB (Wassenaar), pp. 77–84, 2000.
- [637] Farin, D., P.H.N. de With, *Towards Real-Time MPEG-4 Segmentation: a Fast Implementation of Region-Merging*, Twenty-first SITB (Wassenaar), pp. 173–180, 2000.
- [638] Haan, G. de, *Video Processing for Multimedia Systems*, Twenty-first SITB (Wassenaar), pp. 189–198, 2000.
- [639] Vanroose, P., *Information Measures for 3-D Scene Modeling*, Twenty-first SITB (Wassenaar), pp. 199–203, 2000.
- [640] Lei, B.J., Hendriks, E.A., *Eigen Finder: an Extended Approach to Unify Low-Level Feature Extraction*, Twenty-first SITB (Wassenaar), pp. 205–213, 2000.
- [641] Rares, A., Reinders, M.J.T., *Adaptive Mixtures for Object Tracking*, Twenty-first SITB (Wassenaar), pp. 223–230, 2000.

- [642] Bruin M.G. de, Kamminga, C., *Minimizing the Uncertainty Product with Composite Signals*, Twenty-first SITB (Wassenaar), pp. 269–276, 2000.
- [643] Burazerović, D., Gerrits, A., Taori, R., Ritzerfeld, J., *Time-Scale Modification for Speech Coding*, Twenty-second SITB (Enschede), pp. 1–8, 2001.
- [644] Vanroose, P., *Part-Of-Speech Tagging from an Information-Theoretic Point of View*, Twenty-second SITB (Enschede), pp. 33–38, 2001.
- [645] Ravysse, I., Sahli, H., Cornelis, J., *Head Detection, Tracking and Pose Estimation*, Twenty-second SITB (Enschede), pp. 39–44, 2001.
- [646] Gonzalez, O., Katartzis, A., Sahli, H., Cornelis, J., *Pre-Processing of Polarimetric Ir Images for Land Mine Detection*, Twenty-second SITB (Enschede), 2001.
- [647] Benschop, N.F., *Symmetric Logic Synthesis with Phase Assignment*, Twenty-second SITB (Enschede), pp. 115–122, 2001.
- [648] Mindru, F., Moons, T., Van Gool, L., *Changes in Color Images*, Twenty-second SITB (Enschede), pp. 131–138, 2001.
- [649] Slump, C.H., Schiphorst, R., Hoeksema, F.W., Nauta, B., Arkesteijn, V., Klumperink, E., *On AD Conversion for Telecommunications (Abstract)*, Twenty-second SITB (Enschede), p. 155, 2001.
- [650] Jensen, J., Heusdens, R., Veenman, C., *Optimal Time-Differential Encoding of Sinusoidal Model Parameters*, Twenty-second SITB (Enschede), pp. 165–172, 2001.
- [651] Hermus, K., Verhelst, W., Warnbacq, P., *A Scheme for Perceptual Speech and Audio Coding with Damped Sinusoids Based on Total Least Squares Algorithms*, Twenty-second SITB (Enschede), pp. 173–180, 2001.
- [652] Hanjalic, A., XU, L.-Q., *An Approach to Affective Video Content Extraction*, Twenty-second SITB (Enschede), pp. 181–188, 2001.
- [653] Brox, T., D. Farin, P.H.N. de With, *Multi-Stage Region Merging for Image Segmentation*, Twenty-second SITB (Enschede), pp. 189–196, 2001.
- [654] Rares, A., Reinders, M.J.T., Biemond, J., *A Motion-Based Analysis of Fast-Changing Image Content*, Twenty-second SITB (Enschede), pp. 197–204, 2001.
- [655] Srinivasan, R., *Fast Simulation and Applications in Communications and Signal Processing*, Twenty-second SITB (Enschede), pp. 129–130, 2001.
- [656] Albu, F., Fagan, A., *Fast Affine Projection Algorithm Using the Successive Over-Relaxation Method*, Twenty-third SITB (Louvain-La-Neuve), pp. 147–154, 2002.
- [657] De Bie, T. De Moor, B., *On Two New Classes of Alternatives to Canonical Correlation Analysis*, Twenty-third SITB (Louvain-La-Neuve), pp. 163–170, 2002.
- [658] De Lathauwer, L., Fevotte, C., De Moor, B., Vandewalle, J., *Jacobi Algorithm for Joint Block Diagonalization in Blind Identification*, Twenty-third SITB (Louvain-La-Neuve), pp. 155–162, 2002.
- [659] Zuo, F., With, P. de , *Automatic Human Face Detection for Home Surveillance Application*, Twenty-third SITB (Louvain-La-Neuve), pp. 207–214, 2002.
- [660] De Lathauwer, L., De Moor, B., Vandewalle, J., *An Algorithm for Joint Diagonalization by a Congruence Transformation*, Twenty-third SITB (Louvain-La-Neuve), pp. 235–240, 2002.
- [661] De Lathauwer, L., De Moor, B., Vandewalle, J., *An Algebraic Algorithm for Blind Identification with More Inputs Than Outputs*, Twenty-third SITB (Louvain-La-Neuve), pp. 241–246, 2002.
- [662] Vanroose, P., Kalberer, G., Wambacq, P., Van Gool, L., *From Speech to 3D Face Animation*, Twenty-third SITB (Louvain-La-Neuve), pp. 255–260, 2002.

- [663] Vanroose, P., *Blind Source Separation of Speech and Background Music for Improved Speech Recognition*, Twenty-fourth SITB (Veldhoven), pp. 103–108, 2003.
- [664] Zuo F., and P.H.N. de With, *Experimenting with Face Detection and Recognition for Home Surveillance: a Status Report*, Twenty-fourth SITB (Veldhoven), pp. 133–140, 2003.

### WIC Symposium Image and Video Compression Papers

- [665] Huisman, W.C., *Three Image Compression Algorithms for CADISS*, Fourth SITB (Haasrode), pp. 80–93, 1983.
- [666] Roefs, H.F.A., *CADISS: An Image (De)Compression System for Deep Space Application*, Fourth SITB (Haasrode), pp. 121–127, 1983.
- [667] Boekee, D.E., Helden, J. van, *Vector Quantization of Images Using a Generalized Tree-Search Technique*, Fifth SITB (Aalten), pp. 21–27, 1984.
- [668] Plompen, R.H.J.M., Booman, F., *Broncodering van Video Signalen op het Dr. Neher Laboratorium (in Dutch)*, Fifth SITB (Aalten), pp. 110–117, 1984.
- [669] Renes, J.J., Pagter, P.J. de, *Image Data Compression with Spline Approximation and Segmentation*, Fifth SITB (Aalten), pp. 123–130, 1984.
- [670] Rooyackers, J., *An Interframe Video Codec with Straight-Line Approximation*, Sixth SITB (Mierlo), pp. 91–97, 1985.
- [671] Helden, J. van, Boekee, D.E., *A 384 Kbits/s Videoconferencing Coding Scheme Based Upon Vector Quantization*, Sixth SITB (Mierlo), pp. 99–107, 1985.
- [672] Plompen, R.H.J.M., Boekee, D.E., *Motion Estimation in a Hybrid Coding Configuration*, Sixth SITB (Mierlo), pp. 109–115, 1985.
- [673] Huisman, W.C., *Rate Distortion Characteristics of Two Adaptive Data Compression Algorithms*, Sixth SITB (Mierlo), pp. 213–222, 1985.
- [674] Woods, J.W., H.M. Hang, *Predictive Vector Quantization of Images*, Seventh SITB (Noordwijkerhout), pp. 11–19, 1986.
- [675] Simons, H.J., *Error Sensitivity of Compressed Image Data Satellite Communication Links*, Seventh SITB (Noordwijkerhout), pp. 63–72, 1986.
- [676] Heideman, G.H.L.M., Tattje, H.E.P., Linden, E.A.R. van der, Rijks, D., *Self Similar Hierarchical Transforms: a Bridge Between Block-Transform Coding and Coding with a Model of the Human Visual System*, Seventh SITB (Noordwijkerhout), pp. 121–130, 1986.
- [677] Plompen, R.H.J.M., Groenveld, J.G.P., Boekee, D.E., *Properties of Motion Estimation in the Transform Domain*, Seventh SITB (Noordwijkerhout), pp. 133–141, 1986.
- [678] Westerink, P.H., Woods, J.W., Boekee, D.E., *Sub-Band Coding of Images Using Vector Quantization*, Seventh SITB (Noordwijkerhout), pp. 143–150, 1986.
- [679] Biemond, J., Looijenga, L., Boekee, D.E., *A New Pel-Recursive Displacement Estimation Algorithm for Video-Conferencing Purposes*, Eight SITB (Deventer), pp. 37–44, 1987.
- [680] Breeuwer, M., *Adaptive Transform Coding Using Cascaded Vector Quantisation*, Eight SITB (Deventer), pp. 61–67, 1987.
- [681] Okkes, R.W., Huisman, W.C., *Rate Distortion Functions of SAR Imagery*, Eight SITB (Deventer), pp. 108–116, 1987.
- [682] Plompen, R.H.J.M., Biemond, J., Heideman, G.H.L.M., *The Evaluation of a Hybrid DPCM/Transform Codec for Low Bitrates*, Eight SITB (Deventer), pp. 124–131, 1987.



- [683] Stuifbergen, J.A.M., Heideman, G.H.L.M., *A Model for Moving Images Based on the Human Visual System*, Eight SITB (Deventer), pp. 157–163, 1987.
- [684] Waal, R.G. van der, Breeuwer, M., Veldhuis, R.N.J., *Subband Coding of Music Signals Without Loss of Quality*, Eight SITB (Deventer), pp. 196–202, 1987.
- [685] Westerink, P.H., Biemond, J., Boekee, D.E., *Sub-Band Coding of Images Using a Vector Equivalent of DPCM*, Eight SITB (Deventer), pp. 208–213, 1987.
- [686] Stuifbergen, J.A.M., Heideman, G.H.L.M., *A Comparison of Two 3-D Models for Image Coding Based on Processing*, Ninth SITB (Mierlo), pp. 89–96, 1988.
- [687] Westerink, P.H., Biemond, J., Boekee, D.E., *Image Subband Coding: a Quantization Error Analysis*, Ninth SITB (Mierlo), pp. 113–119, 1988.
- [688] Macq, B., Delogne, P., *In Search of a Human Visual Quality Criterion for Image Data Compression*, Tenth SITB (Houthalen), pp. 93–100, 1989.
- [689] Stuifbergen, J.A.M., *Estimation of the Velocity of Contours in a Moving Image by Minimization of the Change of the Velocity Field in a Hierarchical Spatio-Temporal Image Model*, Tenth SITB (Houthalen), pp. 101–107, 1989.
- [690] Hogendoorn, R.A., Kordes, F.L.G., *METEODEC/METEOCRYPYPT: A Demonstration of Data Compression and Encryption for Operational Remote-Sensing*, Tenth SITB (Houthalen), pp. 169–175, 1989.
- [691] Györfi, L., Linder, T., E.C. van der Meulen, *On the Asymptotic Optimality of Quantizers*, Eleventh SITB (Noordwijkerhout), pp. 29–35, 1990.
- [692] Bosveld, F., Lagendijk, R.L., Biemond, J., *Hierarchical Coding Schemes for HDTV Using SBC and DCT*, Eleventh SITB (Noordwijkerhout), pp. 67–73, 1990.
- [693] Driessen, J.N., Biemond, J., *Reduced Resolution Motion Field Estimation by 2-D Kalman Filtering*, Eleventh SITB (Noordwijkerhout), pp. 74–80, 1990.
- [694] Horst, R. ter, *Motion Compensation for Multi Resolution Video Coding (Abstract)*, Eleventh SITB (Noordwijkerhout), pp. 89–89, 1990.
- [695] Keesman, G., *Bit Assignment Method and its Application to Adaptive Dynamic Range Coding*, Eleventh SITB (Noordwijkerhout), pp. 90–96, 1990.
- [696] Vandendorpe, L., Macq, B., *Hierarchical Subband and Entropy Coding*, Eleventh SITB (Noordwijkerhout), pp. 104–110, 1990.
- [697] Schinkel, D., Horst, R. ter, *Coding of Multiple Video Sequences in an ATM Environment*, Eleventh SITB (Noordwijkerhout), pp. 111–113, 1990.
- [698] Bosveld, F., Lagendijk, R.L., Biemond, J., *Hierarchical HDTV Coding for ATM Networks*, Twelfth SITB (Veldhoven), pp. 33–39, 1991.
- [699] Klerk, P.P.C. de, Horst, R. ter, *Variable Length Coding in a Hybrid DCT Codec*, Twelfth SITB (Veldhoven), pp. 41–47, 1991.
- [700] With, P.H.N. de, Nijssen, S.J.J., *An Intraframe Feedforward Coding System*, Twelfth SITB (Veldhoven), pp. 63–69, 1991.
- [701] Vleuten, R.J. van der, Weber, J.H., *A New Constructive Design Method for Trellis Waveform Coders*, Thirteenth SITB (Enschede), pp. 15–22, 1992.
- [702] Leduc, J.P., *Optimum Control of the Image Quality for Digital TV and HDTV Codecs*, Thirteenth SITB (Enschede), pp. 23–30, 1992.
- [703] Bosveld, F., Lagendijk, R.L., Biemond, J., *Compatible Video Transmission Using Spatio-Temporal Subband Coding Schemes*, Thirteenth SITB (Enschede), pp. 31–38, 1992.
- [704] Barnard, H.J., Sankur, B., Lubbe, J.C.A. van der, *Statistics of DCT Coefficients in a Hybrid Video Codec*, Thirteenth SITB (Enschede), pp. 39–46, 1992.

- [705] Stuifbergen, J.A.M., *A Scheme for Displacement Estimation in Image Coding*, Thirteenth SITB (Enschede), pp. 135-141, 1992.
- [706] Belfor, R.A.F., Lagendijk, R.L., Biemond, J., *Sub-Nyquist Sampling of HDTV Using Motion Information*, Thirteenth SITB (Enschede), pp. 143-150, 1992.
- [707] Queluz, M.P., Macq, B., *An Improved Block-Matching, Region-Oriented Motion Compensation Technique*, Thirteenth SITB (Enschede), pp. 151-158, 1992.
- [708] Frimout, E.D., Driessen, J.N., Deprettere, E.F., *Parallel Architecture for a Pel-Recursive Motion Estimation Algorithm*, Thirteenth SITB (Enschede), pp. 159-166, 1992.
- [709] Vleuten, R.J. van der, Weber, J.H., *A New Construction of Trellis-Coded Vector Quantizers*, Fourteenth SITB (Veldhoven), pp. 144-151, 1993.
- [710] Meer, P.J. van der, Biemond, J., Lagendijk, R.L., *A Constant Quality MPEG Codec*, Fourteenth SITB (Veldhoven), pp. 152-159, 1993.
- [711] Slump, C.H., *On Image Compression Related to Image Formation, Capture and Quality*, Fourteenth SITB (Veldhoven), pp. 160-167, 1993.
- [712] Simon, B., Macq, B., Verleysen, M., *Pyramids for Image Compression with Neural Networks Interpolators*, Fourteenth SITB (Veldhoven), pp. 168-174, 1993.
- [713] With, P.H.N. de, Nijssen, S.J.J., *A Buffer Regulation Concept for MC-DCT Systems Tuning to Constant Quantization*, Fourteenth SITB (Veldhoven), pp. 176-182, 1993.
- [714] Hoeksema, F., Horst, R. ter, Heideman, G., Tatje, H., *Evaluation of a H.261 Video Codec in an ATM Network Using a Gaussian Model*, Fourteenth SITB (Veldhoven), pp. 184-191, 1993.
- [715] Franich, R., Lagendijk, R.L., Biemond, J., *A Genetic Algorithm for Smooth Vector Field Estimation*, Fourteenth SITB (Veldhoven), pp. 192-197, 1993.
- [716] Franich, R.E.H., Lagendijk, R.L., Biemond, J., *Fractal Picture Sequence Coding: Finding the Effective Search*, Fifteenth SITB (Louvain-La-Neuve), pp. 209-215, 1994.
- [717] Hekstra, A.P., *On the Duality of Filter Design and Frequency Transform Based Video Coding (abstract)*, Fifteenth SITB (Louvain-La-Neuve), pp. 216-217, 1994.
- [718] Shi, H.Q., Macq, B., *Vector Quantization with Orientation Discrimination*, Fifteenth SITB (Louvain-La-Neuve), pp. 243-251, 1994.
- [719] Meer, P.J. van der, Biemond, J., Lagendijk, R.L., *Modeling of Variable Bit Rate Video Streams*, Fifteenth SITB (Louvain-La-Neuve), pp. 266-273, 1994.
- [720] Westen, S.J.P., Lagendijk, R.L., Biemond, J., *Visibility Thresholds of Quantization Noise in Compressed Digital Image Sequences*, Fifteenth SITB (Louvain-La-Neuve), pp. 274-281, 1994.
- [721] Franich, R.E.H., Lagendijk, R.L., Biemond, J., *A Path Through the Disparity Space Image*, Sixteenth SITB (Nieuwerkerk a/d IJssel), pp. 81-88, 1995.
- [722] Bruijn, F.J. de, Heerde, C.J.E. van, Slump, C.H., *Medical Image Compression Boundaries Based on the Image Acquisition Process*, Seventeenth SITB (Enschede), pp. 1-7, 1996.
- [723] Vleuten, R.J. van der, Oomen, A.W.J., *A Comparison of Subband Coding Gain and Transform Coding Gain*, Seventeenth SITB (Enschede), pp. 9-15, 1996.
- [724] Westen, S.J.P., Lagendijk, R.L., Biemond, J., *The TCQF Algorithm: An Encoder Based Noise Shaping Technique for Image Coding*, Seventeenth SITB (Enschede), pp. 17-23, 1996.
- [725] Hekstra, A.P., Herrera, J.M., *On Data Compression in Packet Switched Networks with Channel Error*, Seventeenth SITB (Enschede), pp. 57-64, 1996.

- [726] Heideman, G.H.L.M., *Minimum Entropy-Representations and Decorrelation*, Seventeenth SITB (Enschede), 1996.
- [727] Desmet, S., DeKnuydt, B., Van Eycken, L., Oosterlinck, A., *A Segmentation-Based Video Codec*, Seventeenth SITB (Enschede), pp. 73–79, 1996.
- [728] Wuyts, T., Van Eycken, L., Oosterlinck, A., *Combined Motion Estimation and Segmentation for Object-Based Very Low Bitrate Coding*, Seventeenth SITB (Enschede), pp. 81–86, 1996.
- [729] Vanroose, P., *Image Understanding Concepts for Improved Image Compression*, Seventeenth SITB (Enschede), pp. 87–93, 1996.
- [730] Schaar-Mitrea, M. v.d., P.H.N. de With, *On the Application of Fast DCT Transforms Combined SW/HW Implementation*, Eighteenth SITB (Veldhoven), pp. 33–40, 1997.
- [731] Beerends, J.G., Hekstra, A.P., *Objective Measurement of Video Quality*, Eighteenth SITB (Veldhoven), pp. 81–88, 1997.
- [732] Westen, S.J.P., Lagendijk, R.L., Biemond, J., *An Eye Movement Compensated Spatio-Temporal Model for Predicting Distortion Visibility in Digital Image Sequences*, Eighteenth SITB (Veldhoven), pp. 89–96, 1997.
- [733] Kleihorst, R.P., Cabrera, F., *VLSI Implementation of DCT-Domain Motion Estimation and Compensation*, Nineteenth SITB (Veldhoven), pp. 21–28, 1998.
- [734] With, P.H.N. de, Schaar-Mitrea, M. v.d., *Low-Cost Embedded Compression for Memory Reduction in MPEG Decoding*, Nineteenth SITB (Veldhoven), pp. 29–36, 1998.
- [735] Bakker, J.-D., Spaan, F.H.P., *Establishing a Trade-Off Between Error Robust Network Protocols and Error Robust Video Compression Algorithms*, Nineteenth SITB (Veldhoven), pp. 37–43, 1998.
- [736] Biemond, J., *Video Compression Beyond 2000*, Nineteenth SITB (Veldhoven), pp. 58–66, 1998.
- [737] Cardinal, J., *A Fast Full Search Equivalent for Mean-Shape-Gain Vector Quantizers*, Twentieth SITB (Haasrode), pp. 39–46, 1999.
- [738] Desmet, S., DeKnuydt, B., Van Gool, L., Van Eycken, L., *Efficient Coding of Non-Static Texture in 3D Scenes*, Twentieth SITB (Haasrode), pp. 47–54, 1999.
- [739] Schaar-Mitrea, M. v.d., P.H.N. de With, *High-Quality Embedded Compression for Digital TV*, Twentieth SITB (Haasrode), pp. 55–62, 1999.
- [740] Schaaf, A. van der, Lagendijk, R.L., *Independence of Source and Channel Coding for Progressive Image and Video Data in Mobile Communications*, Twenty-first SITB (Wassenaar), pp. 55–62, 2000.
- [741] Vleuten, R.J. van der, Kleihorst, R.P., Henschel, C., *Low-Complexity Scalable Image Compression Using the DCT*, Twenty-first SITB (Wassenaar), pp. 85–92, 2000.
- [742] Schelkens, P., Barbarien, J., Cornelis, J., *Volumetric Data Compression Based on Cube-Splitting*, Twenty-first SITB (Wassenaar), pp. 93–100, 2000.
- [743] Kleihorst, R.P., Vleuten, R.J. van der, Apostolidou, M., *Swimming Pool Memories for Image Storage*, Twenty-first SITB (Wassenaar), pp. 165–172, 2000.
- [744] Hunger, A., Werner, S., Akbarov, I., *Improvement and Implementation of Real-Time Video Compression Method for CSCL Software*, Twenty-first SITB (Wassenaar), pp. 181–188, 2000.
- [745] Cardinal, J., *Complexity-Constrained Tree-Structured Vector Quantizers*, Twenty-first SITB (Wassenaar), pp. 239–246, 2000.
- [746] Mietens, S., P.H.N. de With, Henschel, C., *Implementation of a Dynamic Multi-Window TV System*, Twenty-second SITB (Enschede), pp. 139–146, 2001.

- [747] Hoeksema, F., Vermeulen, H., Slump, K., *Component and Composite Coding of Residual Video Signals: Trans-Multiplexing Quantization?*, Twenty-second SITB (Enschede), pp. 205–212, 2001.
- [748] Cardinal, J., *Entropy-Constrained Index Assignments for Multiple Description*, Twenty-third SITB (Louvain-La-Neuve), pp. 17–24, 2002.
- [749] Mietens, S., With, P. de, Hentschel, C., *Frame Reordered Multi-Temporal Motion Estimation for Scalable MPEG*, Twenty-third SITB (Louvain-La-Neuve), pp. 115–121, 2002.
- [750] Farin, D., Käsemann, M., P.H.N. de With, Effelsberg, W., *Rate-Distortion Optimal Adaptive Quantization and Coefficient Thresholding for MPEG Coding*, Twenty-third SITB (Louvain-La-Neuve), pp. 131–138, 2002.
- [751] Iregui, M., Meessen, J., Chevalier, P., Macq, B., *Flexible Access to JPEG2000 Code-streams*, Twenty-third SITB (Louvain-La-Neuve), pp. 139–146, 2002.
- [752] Vleuten, R.J. van der, *Improved Elastic Storage of Digital Still Images*, Twenty-fourth SITB (Veldhoven), pp. 71–78, 2003.
- [753] Farin, D., P.H.N. de With, and W. Effelsberg, *Optimal Partitioning of Video Sequences for MPEG-4 Sprite Encoding*, Twenty-fourth SITB (Veldhoven), pp. 79–86, 2003.
- [754] Mietens, S. P.H.N. de With, and C. Hentschel, *A SW-Based Complexity Scalable MPEG Encoder for Mobile Consumer Equipment*, Twenty-fourth SITB (Veldhoven), pp. 87–94, 2003.
- [755] Cardinal, J., *Index Assignment Schemes for M-Description Coding*, Twenty-fourth SITB (Veldhoven), 2003.