

# Publications

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## Ph. D. dissertation

*Hierarchical coding of digital moving pictures*, October 1991, UCL.

## Parts of books

1. P. Sobieski, P. Delogne, L. Vandendorpe and A. Laloux, "System studies and developments for space communications", vol. IV, Chap. 2, Federal Office for Scientific, Technical and Cultural Affairs (Ed), pp. 267-273, Brussels, Belgium, March 1996, D/1996/1191/5.
2. L. Vandendorpe, "Digital mobile radio towards future generation systems", pp. 343-349, European Commission, 1999.
3. J. Czyz and L. Vandendorpe, "Authentification biométrique" dans "Sécurité des systèmes d'information", Hermès, 2006, pp 315-337.

## Invited journal papers

1. L. Vandendorpe, "Fractionally spaced linear and DF MIMO equalizers for multitone systems without guard time", invited in the *Annals of Telecommunications*, Special Issue about Multicarrier transmission techniques, Vol. 52, No 1-2, pp. 21-30, Janvier-Février 1997.
2. T. Pollet, M. Peeters, M. Moonen, L. Vandendorpe, "Equalization for DMT based broadband modems", *IEEE Communications Magazine*, Vol. 38, No 5, pp. 106-113, May 2000.
3. B. Macq, F. Labeau, C. Desset, L. Vandendorpe, "Image processing for multimedia terminals and related architectures", *Signal Processing*, Vol. 80, No 7, pp. 1167-1183, July 2000.

## Journal papers in special issues

1. P. Delogne, O. Poncin, B. Van Caillie and L. Vandendorpe, "Compatible coding of digital interlaced HDTV", *IEEE Journal of Selected Areas in Communications*, Special Issue on High Definition Television, Vol. 11, No 1, Janvier 1993, pp. 146-152.
2. L. Vandendorpe, L. Cuvelier, B. Maison, P. Queluz and P. Delogne, "Motion compensated conversion from interlaced to progressive formats", *Signal Processing : Image Communication*, Special Issue on Motion Processing for Standard Conversion, Vol. 6, No 3, June 1994, pp. 193-211.
3. P. Delogne, L. Cuvelier, B. Maison, B. Van Caillie and L. Vandendorpe, "Improved interpolation, motion estimation and compensation for interlaced pictures", *IEEE Transactions on Image Processing*, Special Issue on Image Sequence Compression, Vol. 3, No 5, September 1994, pp. 482-491.
4. L. Vandendorpe, O. van de Wiel, "Performance analysis of linear MIMO equalizers for multitone DS/SS systems in multipath channels", *Wireless Personal Communications*, Special Issue on Multicarrier Techniques, Vol. 2, No 1-2, 1995, pp. 145-165.
5. L. Vandendorpe, O. van de Wiel, "Performance analysis of linear joint equalization and multiple access interference cancellation for multitone CDMA", *Wireless Personal Communications*, Special Issue on interference cancellation for Personal, Indoor and Mobile Radio Communications, Vol. 3, No 1-2, 1996, pp. 17-36.

6. L. Vandendorpe, O. van de Wiel, "MIMO DFE equalization for multitone DS/SS systems over multipath fading channels", *IEEE Journal on Selected Areas in Communications*, special issue on "Wireless local communications", Vol. 14, No 3, pp. 502-511, 1996.
7. L. Vandendorpe, L. Cuvelier, F. Deryck, J. Louveaux and O. van de Wiel, "Fractionally spaced linear and decision feedback detectors for transmultiplexers", *IEEE Trans. on Signal Processing*, special issue on "filter banks", Vol. 46, No 4, pp 996-1011, April 1998.
8. Demosthenes Ikonou, L. Vandendorpe, "A fractionally spaced decision feedback joint detection proposal for MC-CDMA", *European Transactions on Telecommunications and related technologies*, Special Issue about MultiCarrier Spread Spectrum, Vol. 10, N0 4, July/August 1999, pp. 407-416.
9. Mamoun Guenach and Luc Vandendorpe: "Tracking performance of DA and DD multiuser timing synchronizers for short code DS-SS systems", *IEEE Journal on Selected Areas in Communications* (Special issue on Synchronization in Digital Communications), Vol. 19, n° 12, Dec. 2001, pp. 2452-2461.
10. Nele Noels, Vincenzo Lottici, Antoine Dejonghe, Heidi Steendam, Marc Moeneclaey, Marco Luise, Luc Vandendorpe, "A Theoretical Framework for Soft Information Based Synchronization in Iterative (Turbo) Receivers", *EURASIP Journal on Wireless Communications and Networking* special issue about Advanced Signal Processing for Communications, 2005:2, 117-129.
11. C. Herzet, N. Noels, V. Lottici, H. Wymeersch, M. Luise, M. Moeneclaey, L. Vandendorpe, "Code-Aided Turbo Synchronization", to appear in the Proceedings of the IEEE, Special issue on turbo techniques, 2007.
12. Xavier Jaspar, Christine Guillemot, Luc Vandendorpe, "Joint Source-Channel Turbo Techniques: from Theory to Practice"; to appear in the Proceedings of the IEEE, Special issue on turbo techniques, 2007.

### International Journal papers

1. C. Delépaut et L. Vandendorpe, "Ultrasonic Three-dimensional detection of obstacles", *IEEE Student Book*, pp. 178-182, 1986.
2. J. M. Adant, P. Delogne, E. Lasker, B. Macq, L. Stroobants, L. Vandendorpe, "Block Operations in Digital Signal Processing with Applications to TV coding", *Signal Processing*, Vol. 13, No 4, December 1987, pp. 385-397.
3. L. Vandendorpe, B. Macq, "Optimum Quality and Progressive Resolution of Video Signals", *Annales des Télécommunications*, Vol. 45, No 9-10, pp. 487-502, Septembre-Octobre 1990.
4. L. Vandendorpe, "Optimum Quantization for Image Subband Coders", *Signal Processing : Image Communication*, Vol. 4, No 1, November 1991, pp. 65-79.
5. L. Vandendorpe, "Hierarchical Transform and Subband Coding of Video Signals", *Signal Processing : Image Communication*, Vol. 4, No 3, June 1992, pp. 242-265.
6. L. Vandendorpe, "Human Visual Weighted Quantization : a Unified Approach for Subband and Pyramidal Image Coders", *Annales des Télécommunications*, Vol. 47, Nos 7-8, Juillet-Août 1992, pp. 282-292.

7. L. Vandendorpe, "CQF Filter Banks Matched to Signal Statistics", *Signal Processing*, Vol. 29, No 3, December 1992, pp. 237-249.
8. L. Vandendorpe and R. Prasad, "Hybrid slow frequency hopping-direct sequence spread spectrum indoor communication systems with QPSK modulation", *Annals of Telecommunications*, Vol. 49, Nos 9-10, September-October 1994, pp. 518-526.
9. L. Vandendorpe, "Multitone Spread Spectrum Communications Systems in a Multipath Rician Fading channel", *IEEE Transactions on Vehicular Technology*, Vol. 44, No 2, May 1995, pp. 327-337.
10. L. Vandendorpe, O. van de Wiel, "Decision feedback multi-user detection for multitone CDMA", *European Transactions on Telecommunications and related technologies*, Vol. 8, No 1, pp. 67-78, January-February 1997.
11. L. Vandendorpe, L. Cuvelier, B. Maison and P. Delogne, "MMSE design of interpolation and downsampling FIR filters in the context of periodic nonuniform sampling", *IEEE Trans. on Signal Processing*, Vol. 45, No 5, pp. 1144-1152, May 1997.
12. L. Vandendorpe and O. van de Wiel, "Fractionally spaced decision feedback joint detection for multitone CDMA", *IEEE Trans. on Communications*, Vol. 45, No 8, pp. 906-909, August 1997.
13. O. van de Wiel and L. Vandendorpe, "Fractionally spaced linear joint detection for multitone CDMA", *IEEE Trans. on Vehicular Technology*, Vol. 46, No 4, pp. 941-948, November 1997.
14. L. Vandendorpe, L. Cuvelier, B. Maison, "Human visual quantization for transform/subband image coding revisited for interlaced images", *IEEE Transactions on Image Processing*, Vol. 7, No 2, February 1998, pp. 222-225.
15. S. Pigeon and L. Vandendorpe, "Image-based multimodal face authentication", *Signal Processing*, Vol. 69, No 1, August 1998, pp. 59-80.
16. B. Maison, L. Vandendorpe, "About the Asymptotic Performance of Multiple-Input/Multiple-Output Linear Prediction of Subband Signals", *IEEE Signal Processing Letters*, December 1998, pp. 315-317.
17. L. Vandendorpe, J. Louveaux, "About ML DA Timing Estimation for Filter Bank Based MC Transmission", *IEEE Communications Letters*, Vol. 3, No 4, April 1999, pp. 106-108.
18. L. Vandendorpe, L. Cuvelier, "Statistical properties of interlaced and progressive image sequences", *IEEE Transactions on Image Processing*, Vol. 8, No 6, June 1999, pp. 749-761.
19. L. Vandendorpe, B. Maison, "Multiple-input/multiple-output linear prediction of subband signals", *IEEE Trans. on Circuits and Systems II*, Vol. 46, No 9, September 1999, pp. 1230-1232.
20. L. Vandendorpe, L. Cuvelier, J. Louveaux and B. Maison, "About the asymptotic performance of MMSE MIMO DFE equalization for filter bank based multicarrier", *IEEE Trans. on Communications*, Vol. 47, No 10, October 1999, pp. 1472-1475.
21. Jérôme Louveaux, Luc Vandendorpe, Laurent Cuvelier and Thierry Pollet, "An early-late based timing recovery scheme for filter-bank-based multicarrier transmission", *IEEE Trans. on Communications*, Vol. 48, n° 10, October 2000, pp. 1746-1754.

22. F. Labeau, L. Vandendorpe, B. Macq, "Structures, factorizations and design criteria for oversampled paraunitary filter banks yielding linear phase filters", *IEEE Trans. on Signal Processing*, Vol. 48, No 11, November 2000, pp. 3062-3071.
23. A. Chevreuil, P. Loubaton, L. Vandendorpe, "Transmitter induced cyclostationarity: analysis based on a MMSE-DF equalizer", *IEEE Trans. on Signal Processing*, Vol. 48, No 11, November 2000, pp. 3072-3086.
24. J. Louveaux, L. Vandendorpe, L. Cuvelier, T. Pollet, "Bit rate sensitivity of filter bank based multicarrier transmission to timing errors", *IEEE Trans. on Communications*, Vol. 49, No 2, February 2001, pp. 375 -384.
25. M. Guenach, L. Vandendorpe, "Downlink performance analysis of a BPSK-based WCDMA using conventional rake receivers with channel estimation", *IEEE JSAC Series Wireless Communications*, Vol. 19, n° 11, November 2001, pp. 2165-2176.
26. Fabrice Labeau, Claude Desset, Luc Vandendorpe and Benoit Macq: "Performance of linear tools and models for error detection and concealment in subband image transmission", *IEEE Trans. on Image Processing*, Vol. 11, n°5, May 2002, pp. 518-529.
27. François Horlin et Luc Vandendorpe: 'A comparison between chip fractional and non fractional sampling for a direct sequence CDMA receiver', *IEEE Transactions on Signal Processing*, Vol. 50, n° 7, July 2002, pp. 1713-1723.
28. Desset C, Macq B, Vandendorpe L, "Block error-correcting codes for systems with a very high BER: Theoretical analysis and application to the protection of watermarks", *SIGNAL PROCESS-IMAGE*, 17 (5): 409-421, MAY 2002.
29. F. Horlin, L. Vandendorpe, "CA-CDMA: channel adapted CDMA for MAI/ISI-free burst transmission", *IEEE Trans. on Communications*, Vol. 51, n 2, Feb. 2003, pp. 275-283.
30. P. Ciblat, L. Vandendorpe, "Blind carrier frequency offset estimation for noncircular constellation based transmission", *IEEE Trans. on Signal Processing*, Vol. 51, n 5, May 2003, pp. 1378-1389.
31. J. Louveaux, L. Vandendorpe, "Cyclic prefixed single carrier and multicarrier: a bit rate comparison", *IEEE Communication Letters*, Vol. 7, n° 4, April 2003, pp. 180-182.
32. J. Louveaux, L. Cuvelier, L. Vandendorpe, T. Pollet, "Baud rate timing recovery scheme for filter-bank based multicarrier transmission", *IEEE Trans. on Communications*, Vol. 51, n° 4, April 2003, pp. 652-663.
33. J. Louveaux, T. Sartenauer, L. Vandendorpe, "Early-late timing recovery with decision-feedback equalizers", *IEEE Communication Letters*, Vol. 7, n° 7, July 2003, pp. 332-334.
34. G. Giunta and L. Vandendorpe, "A Rayleigh-ness Test for DS/SS Code Acquisition", *IEEE Trans. on Communications*, Vol. 51, n° 9, Sept. 2003, pp. 1492-1501.
35. F. Horlin, L. Vandendorpe, "Multiuser MIMO channel adapted precoding for MAI/ISI free uplink burst transmission", *IEEE Trans. on Communications*, Volume 52, Issue 1, Jan. 2004, Pages 100-109.
36. B. Clerckx, L. Vandendorpe, D. Vanhoenacker-Janvier, C. Oestges, "Optimization of non-linear signal constellations for real-world MIMO channels", *IEEE Transactions on Signal Processing*, Volume 52, Issue 4, April 2004, Pages 894-902.

37. T. Sartenaer, L. Vandendorpe, "Linear and DF joint detectors for DS-CDMA communications using periodic long codes", *IEEE Transactions on Signal Processing*, Volume 52, Issue 7, July 2004, Pages 2080-2091.
38. Jacek Czyz, Josef Kittler, Luc Vandendorpe, "Multiple classifier combination for face-based identity verification", *Pattern Recognition* 37 (7): 1459-1469 July 2004.
39. Xavier Wautelet, Antoine Dejonghe and Luc Vandendorpe: "MMSE-based fractional turbo receiver for space-time BICM over frequency selective MIMO fading channels", *IEEE Trans. on Signal Processing*, Volume 52, Issue 6, June 2004, Pages 1804-1809.
40. Claude Desset, Benoît Macq, Luc Vandendorpe, "Computing the word, symbol, and bit error rates for block error-correcting codes", *IEEE Transactions on Communications*, Volume 52, Issue 6, June 2004, Pages 910 - 921.
41. A. Dejonghe, L. Vandendorpe, "Bit-interleaved turbo-equalization over static frequency-selective channels: constellation mapping impact", *IEEE Transactions on Communications*, Volume 52, Issue 1, December 2004, Pages 2061 - 2065.
42. G. Giunta, A. Neri, L. Vandendorpe, "Initial Code Synchronization of W-CDMA Mobile Systems Exploiting Local Phase Coherence and Pisarenko Estimation", *IEEE Transactions on Communications*, Volume 53, January 2005, pp. 2061 - 2065.
43. F. Labeau, J. C. Chiang, M. Kieffer, P. Duhamel, L. Vandendorpe and B. Macq, "Oversampled Filter Banks as Error Correcting Codes: Theory and Impulse Noise Correction", *IEEE Trans. on Signal Processing*, Volume 53, Issue 12, December 2005, pp. 4619 - 4630.
44. T. Sartenaer, L. Vandendorpe, J. Louveaux, "Balanced capacity of wireline multiuser channels", *IEEE Transactions on Communications*, Volume 53, No 12, December 2005, pp. 2029-2042.
45. C. Herzet, L. Vandendorpe, "A Theoretical Framework for Iterative Synchronization based on the Sum-Product and the Expectation-Maximization Algorithms", to appear in *IEEE Trans. on Signal Processing*, 2007.
46. C. Herzet, H. Wijmeersch, M. Moeneclaey and L. Vandendorpe, "On maximum likelihood timing synchronization", to appear in *IEEE Transactions on Communications*, 2007.
47. Xavier Wautelet, Cédric Herzet, Antoine Dejonghe, Jérôme Louveaux, and Luc Vandendorpe, "Comparison of EM-Based Algorithms for MIMO Channel Estimation", to appear in *IEEE Transactions on Communications*, January 2007.
48. V. Ramon, L. Vandendorpe, "A semi-analytical method for predicting the performance and convergence behavior of a multi-user turbo-equalization/demapping scheme", accepted for publication in *IEEE Trans. on Signal Processing*, 2006.

### National Journal papers

1. P. Delogne, B. Macq, L. Vandendorpe, "Intra Field discrete Cosine Transform Video Codec", *revue HF*, Vol. XIII, No 11, pp. 319-335, 1987.
2. L. Vandendorpe, O. van de Wiel, "Equalization and interference cancellation for multitone CDMA systems", invited for publication in the *revue HF*, Special issue on Spread spectrum, No 1, 1996, pp. 57-73.

3. A. Dejonghe, L. Vandendorpe, "An overview of some turbo techniques in digital communications", *Revue HF*, No 1/2001, p. 38-50.
4. T. Sartenaer, L. Vandendorpe, "Resource allocation for frequency-selective multiple access channels with adaptive QAM modulation", *Revue HF*, No 1/2001, p. 51-63.

## Patents

1. P. Delogne, B. Macq, L. Vandendorpe, "Method of coding video signals", United States Patent 4894713.
2. L. Vandendorpe, O. van de Wiel, "Multiband detector", patent CN1224291, 1999.
3. T. Pollet, L. Vandendorpe, M. Peeters, L. Cuvelier, "Method and arrangement to determine a clock timing error in a multi-carrier transmission system", US patent US2002150071.
4. P. Antoine, T. Pollet, F. Deryck, L. Vandendorpe, P. Geeraerts, ; "Optimised bit allocation adapted for VDSL", US patent US2003130824, 2003.

## Invited presentations

1. L. Vandendorpe, "Compatible coding of TV and HDTV", invited for the *URSI XXIV th General Assembly*, Kyoto, Japan, August 25-September 2, 1993, pp. 103.
2. L. Vandendorpe and O. van de Wiel, "Equalization and interference cancellation for multitone CDMA systems", invited for the *IEEE Workshop on synchronization and equalization in digital communications*, Gent, Belgium, May 1995, pp. 37-53.
3. L. Vandendorpe and O. van de Wiel, "Decision feedback joint detection for multitone CDMA systems", in *Proceedings of the Seventh Thyrrhenian International Workshop on Digital Communications* (Springer), Viareggio, Italy, September 1995, pp. 39-52.
4. L. Vandendorpe, "Fractionally spaced linear and DF MIMO equalizers for multitone systems without guard time", invited for the *IEEE International Conference on Personal Wireless Communications, ICPWC'96*, India, February 1996, pp. 323-327.
5. L. Vandendorpe, "Reduced complexity fractionally spaced equalizers for multitone systems without guard time", invited for the *URSI XXV th General Assembly*, Lille, France, August-September 1996, pp. 159.
6. L. Vandendorpe, "Overview of the results about multitone CDMA", invited for the *1997 First International Workshop on Multi-carrier spread spectrum*, Oberpfaffenhofen, Germany, April 1997, in "Multicarrier spread spectrum", Kluwer, 1997, pp. 13-21.
7. J. Louveaux, L. Vandendorpe, L. Cuvelier, T. Pollet, "Capacity sensitivity of filter bank based MC VSDL transmission to timing errors", 1998 International Symposium on Signals, Systems and Electronics, ISSSE98, Pisa, Italy, September 1998, pp. 235-240.
8. M. Guenach and L. Vandendorpe, "Tracking performance of DA and DD multiuser timing synchronizers for short code DS-CDMA systems", invited for *ISSSE'01 - URSI Intl Symposium on Signals, Systems and Electronics*, Tokyo, Japan, July 24-27, 2001.

9. T. Sartenaer and L. Vandendorpe, "ML DA timing estimation for multiuser filter bank uplink transmission over static time dispersive channels", *EUSIPCO 2002*, Toulouse, September 2002.
10. Luc Vandendorpe, Antoine Dejonghe, Cédric Herzet, Xavier Wautelet and Marc Moeneclaey: "Soft information aided synchronization : recent results", invited for *SPSC 2003 - 8th Intl Workshop on Signal Processing for Space Communications*, Sept. 24-26, 2003, Catania, Italy, Proceedings, pp. 195-202.
11. L. Vandendorpe, "Recent advances in soft information aided synchronization", *IEEE SPAWC 2004*, Lisbonne, July 2004.
12. Jonathan Duplicy, Jérôme Louveaux and Luc Vandendorpe , "Linearly precoded multi-user MIMO-OFDM", in *XI National Symposium of Radio Science - URSI05, URSI 05*, Poznan, Poland, Apr 07 - Apr 08 2005.
13. Devillers B., Sartenaer T. and Vandendorpe L. , "Bit rate comparison between MIMO cyclically prefixed single carrier and multicarrier transmissions", invited for presentation at the 13th European Signal Processing Conference, Antalya, Turkey, September 2005, 5p.
14. C. Herzet, V. Ramon and L. Vandendorpe , "A factor graph approach to design close-to-optimal receivers in the presence of a timing uncertainty", invited for presentation at the 13th European Signal Processing Conference, Antalya, Turkey, September 2005, 5p.

### Refereed conference papers

1. C. Delépaut, L. Vandendorpe, C. Eugène, "Ultrasonic Three-Dimensional Detection of Obstacles for Mobile Robots", *16th International Symposium on Industrial Robots*, September, October 1986, Brussels, pp. 483-490.
2. L. Vandendorpe, J. M. Adant, A. Laloux, E. Lasker, B. Macq, L. Stroobants, "la Télévision numérique dans les réseaux à large bande", *Troisième congrès sur les Systèmes et Services nouveaux de Télécommunications*, Liège, 12-14 novembre 1986, pp. 5.40-5.46.
3. P. Delogne, J. M. Adant, B. Macq, L. Vandendorpe, "Perceptual Transforms", *Picture Coding Symposium*, Stockholm, Sweden, 9-11 June 1987, p. 3.5.
4. P. Delogne, J. M. Adant, B. Macq, L. Vandendorpe, "Multidimensional Block Processing", *Picture Coding Symposium*, Stockholm, Sweden, June 9-11, 1987, pp. 7.6-7.7.
5. P. Delogne, B. Macq, L. Vandendorpe, B. Van Caillie, "Multidimensional Block Processing for Standards Conversion in Digital Television", *Eusipco 88 (Eurasip)*, Grenoble, pp. 1593-1596.
6. B. Macq, J. P. Choffray, P. Delogne, J.C. Stiennon, L. Vandendorpe, "Compatible Digital High Definition Television Broadcasting by Satellite", *Globecom 89 (IEEE)*, Dallas, pp. 0231-0235.
7. B. Macq, L. Vandendorpe, "Comparison of the Progressivity of Picture Definition in the Pel and in the Transform Domain", *URSI International Symposium on Signals, Systems and Electronics ISSSE'89*, Erlangen, Germany, September 89, pp. 321-324.
8. L. Vandendorpe, "Hierarchical Encoding of HDTV by Transform Coefficient Block Splitting", *SPIE/ SPSE Symposium on Electronic Imaging, Conference on Image Processing Algorithms and Techniques*, February 90, Santa Clara, USA, pp. 343-354.

9. L. Vandendorpe, "Hierarchical Encoding of HDTV by Transform Coefficient Block Splitting : a Comparison between DCT and MSDCT", *Picture Coding Symposium*, March 26-28, 1990, MIT, Cambridge, USA, pp. 3.2-1,3.2-2.
10. L. Vandendorpe, B. Macq, "Optimum Quantization for Subband Coders", *Visual Communication and Image Processing '90, SPIE*, October 1990, Lausanne, Switzerland, pp. 898-908.
11. L. Vandendorpe, B. Macq, "Hierarchical Subband and Entropy Coding", *Eleventh Symposium on Information Theory in the Benelux*, October 25-26, 1990, Noordwijkerhout, the Netherlands, pp. 104-110.
12. L. Vandendorpe, "Transform and Subband Hierarchical Coding of HDTV", *Fourth International Workshop on HDTV and beyond*, 8 p., Turin, Italy, September 1991.
13. L. Vandendorpe, J.-P. Leduc, "Two-layer HDTV-TV Coding Scheme with Subband Technique for ATM Networks", *Packet Video '91, Fourth International Workshop*, Kyoto, Japan, pp. P.V. 91 B1-1 to B1-6, September 1991.
14. J.-P. Leduc, L. Vandendorpe, "General Model of TV codecs with Related ATM Network Performances", *Packet Video '91, Fourth International Workshop*, Kyoto, Japan, pp. P.V. 91 E3-1 to E3-6, September 1991.
15. P. Delogne, L. Vandendorpe, P. Francis et F. Vermaut, "Conversion from Interlaced to Progressive Formats by means of Motion Compensation Based Techniques", *IEE Fourth International Conference on Image Processing and its Applications*, Maastricht, The Netherlands, 7-9 April 1992, pp. 409-412.
16. L. Vandendorpe and M. Van Droogenbroeck, "Integration of the Selective Deconvolution Algorithm into a Multiresolution Scheme", *SPIE/IS&T Symposium on Electronic Imaging : Science & Technology*, Image Processing Algorithms and Techniques III, San Jose, USA, 9-14 February 1992, pp. 225-235.
17. P. Delogne, L. Vandendorpe, B. Van Caillie and O. Poncin, "Compatible Coding of Digital HDTV", *1992 IEEE International Symposium on Circuits and Systems*, San Diego, 10-13 May 1992, pp. 196-199.
18. L. Vandendorpe, "CQF Filter Banks Optimized for Subband Zonal Sampling and Distortion Minimization", *Eusipco 92 (Eurasip)*, Brussels, pp. 1275-1278.
19. L. Vandendorpe, "Performance analysis of hybrid DS/SFH CDMA systems with PSK and diversity in a Rician environment", *Prorisc and IEEE Benelux Workshop on Circuits, Systems and Signal Processing*, Houthalen, Belgium, March 1993, pp. 281-288.
20. R. Prasad and L. Vandendorpe, "Performance evaluation of millimeter wave indoor wireless communication systems", *Race Mobile Telecommunications Workshop*, Metz, June 16-18, 1993, pp. 0137-0142.
21. L. Vandendorpe, "Performance analysis of hybrid DS/SFH CDMA systems with coherent reception and diversity in a Rician environment", *URSI XXIV th General Assembly*, Kyoto, Japan, August 25-September 2, 1993, pp. 558.
22. P. Delogne, L. Cuvelier, B. Maison, B. Van Caillie and L. Vandendorpe, "Improved interpolation, motion estimation and compensation for interlaced pictures", *SPIE's Symposium on Visual Communications and Image Processing '93*, Cambridge, 1993, pp. 326-336.

23. L. Cuvelier, B. Macq, B. Maison, and L. Vandendorpe, "Optimized interpolation filters for compatible pyramidal coding of TV and HDTV", *SPIE's Symposium on Visual Communications and Image Processing'93*, Cambridge, 1993, pp. 637-646.
24. L. Vandendorpe, L. Cuvelier, B. Maison and P. Delogne, "Improved motion compensated conversion between interlaced TV and HDTV formats", *International Workshop on HDTV'93*, Canada, April 1993.
25. L. Vandendorpe, L. Cuvelier, B. Maison and P. Delogne, "Pyramidal scheme for the compatible coding of interlaced TV/HDTV", *International Workshop on HDTV'93*, Canada, April 1993.
26. L. Vandendorpe, "Multitone system in an unlimited bandwidth multipath Rician fading environment", *IEE'93 Conference on Mobile and Personal Communications*, Brighton, December 1993, pp. 114-119.
27. L. Vandendorpe and R. Prasad, "Performance Analysis of Hybrid SFH/DS SS Communications Systems with QPSK", *Fourth IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC'93)*, Japan, September 1993, pp. 498-502.
28. L. Vandendorpe, "Multitone spread spectrum communications system in an indoor wireless channel", *First IEEE Symposium on Communications and Vehicular Technology in the Benelux*, Delft, October 1993, pp. 4.1-1/4.1-8.
29. L. Vandendorpe, "Multitone transmission in an indoor wireless environment", *First IEEE Symposium on Communications and Vehicular Technology in the Benelux*, Delft, October 1993, pp. 2.1-1/2.1-8.
30. L. Vandendorpe, "Multitone spread spectrum communications system in a multipath Rician fading channel", *1994 IEEE International Zurich Seminar on Digital Communications*, Lecture Notes in Computer Science 783, March 1994, pp. 440-451.
31. L. Vandendorpe, "Multitone spread spectrum multiple access communications system in a multipath Rician fading channel", *1994 IEEE International Communications Conference*, New Orleans, April 1994, pp. 1638-1641.
32. A. Rodrigues, C. Seebaluck, L. Vandendorpe and A. A. Albuquerque, "Performance of direct sequence spread spectrum multi-h CPM in indoor mobile radio systems", *44th IEEE Vehicular Technology Conference*, Stockholm, June 1994, pp. 578-581.
33. L. Vandendorpe, "Hybrid SFH-multitone DS spread spectrum multiple access communication system in a multipath Rician fading channel", *44th IEEE Vehicular Technology Conference*, Stockholm, June 1994, pp. 1135-1139.
34. L. Vandendorpe, P. Delogne, B. Maison and L. Cuvelier, "MMSE design of polyphase components for generalized interpolators", *IEEE Int. Conf. on Acoustics, Speech and Signal Processing*, Australia, April 1994, pp. III;265-III;268.
35. O. van de Wiel and L. Vandendorpe, "Bidimensional RLS linear equalization for OFDM/DS transmission in an indoor environment", *Fourth COST 229 Workshop*, Ljubljana, Slovenia, April 1994, pp. 49-53.
36. O. van de Wiel and L. Vandendorpe, "A comparison of bidimensional RLS and LMS linear equalization for OFDM/DS transmission in an indoor environment", *15th Symposium on Information Theory in the Benelux*, Louvain-la-Neuve, May 1994, pp. 152-159.

37. A. J. Rodrigues, L. Vandendorpe, A. A. Albuquerque, "Direct sequence CDMA multi-h CPM in Indoor Mobile Radio Systems with Post-Detection Diversity", *15th Symposium on Information Theory in the Benelux*, Louvain-la-Neuve, May 1994, pp. 138-145.
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