

NEVIO BENVENUTO

PRINCIPAL PUBLICATIONS

Books:

B1 "Algorithms for Communications Systems and their Applications" (with G. Cherubini), Chichester: John Wiley & Sons, 1285 pages, 2002.

B2 "Communication Systems: Fundamentals and Design Methods" (with R. Corvaja, T. Erseghe, N. Laurenti), Chichester: John Wiley & Sons, 515 pages, 2007.

B2 "Principles of Communications Networks and Systems" (Editor, with M. Zorzi), Chichester: John Wiley & Sons, 786 pages, 2011.

.

Patents:

P1 "ADPCM Coder-Decoder Including Partial Band Energy Transition Detection", (with G. Bertocci) U.S. Patent No. 4,677,423, EP0228696, July 15, 1987.

P2,P3 "Voiceband Signal Classification", U.S. Patents No. 4,815,136 and 4,815,137, KR9102327 and KR9102328, April 11, 1991.

P4 "Classifier for High Speed Voiceband Digital Data Modem Signals" (with T.W. Goeddel) U.S. Patent No. 4,979,211, US4979211, December 18, 1990.

P5 "Multistandard Reception Apparatus with Cascaded Multistage-Structured Numerical Filters", (with G.A. Mian) EP1054509, November 22, 2000.

P6 "Low Computational Complexity Joint Detection for Hybrid TD-CDMA Systems", (with G. Sostrato) WO0077942, December 21, 2000.

P7 "Multi-Standard Receiving Apparatus and Method of Defining Parameters Therein", (with G.A. Mian) WO0103312, January 11, 2001.

P8 "WCDMA-UTRA/FDD Method and Receiver System", (with L. Vangelista) WO0150694, July 12, 2001.

P9 "Ricevitore Digitale con Equalizzazione Soft Output Reduced State Maximum a Posteriori Probability (SORS-MAP)", (with L. Vangelista) ITTS20010012, December 2, 2002.

P10 "Reduced State Maximum Likelihood Multiuser Detection Techniques for Downlink TD-CDMA", (with R. Sandre) WO0223752, March 21, 2002.

P11 "Frequency-domain Decision Feedback Equalizing Device and Method", (with S.Tomasin) EP1537708, June 8, 2005.

P12 "Filterbank Modulation System with Pre-equalization", (with S.Tomasin) EP1540911, June 15, 2005.

P13 "Method of Bit and Power Loading in OFDM Communication Systems with Modulation and Coding Adaptation", (with A. Colosimo) CN1574811, February 2, 2005.

P14 "Frequency-Domain Multi-User Interference Cancellation and Nonlinear Equalization in CDMA Receivers", (with S. Tomasin) US2005249269, November 19, 2005.

P15 "Filterbank Modulation System with Pre-Equalization", (with S. Tomasin) US2005259755, November 24, 2005.

P16 "Frequency-Domain Decision Feedback Equalizing Device and Method", (with S. Tomasin) US2005259727, November 24, 2005.

Journal Articles:

J1 "Error Probability Evaluation in Fiber Optic Digital Systems with Correlated Symbols and Comparison of some Block Encodings", (with S.G. Pupolin), *Alta Frequenza*, pp. 805-814, November 1978.

J2 "On the Design of FIR Filters with Powers of Two Coefficients", (with L.E. Franks and F.S. Hill, Jr.), *IEEE Trans. on Commun.*, vol. COM-32, pp. 1299-1307, December 1984.

J3 "Distortion Analysis on Measuring the Impulse Response of a System Using a Crosscorrelation Method", *AT&T Bell Laboratories Tech. Journal*, vol. 63, pp. 2171-2192, December 1984.

J4 "Moments of Error-Frequency Response Due to Coefficient Inaccuracy for Sampled Data Filters", *IEEE Trans. on ASSP*, vol. ASSP-33, pp. 436-437, April 1985.

J5 "Realization of Finite Impulse Response Filters Using Coefficients +1, 0, and -1" (with L.E. Franks and F.S. Hill, Jr.), *IEEE Trans. on Commun.*, vol. COM-33, pp. 1117-1125, October 1985.

J6 "Dynamic Programming Methods for Designing FIR Filters Using Coefficients -1, 0, and +1", (with L.E. Franks and F.S. Hill, Jr.) *IEEE Trans. on ASSP*, vol. ASSP-34, pp. 785-792, August 1986.

J7 "The 32-kb/s ADPCM Coding Standard" (with G. Bertocci, W.R. Daumer and D.K. Sparrell) *AT&T Technical Journal*, vol. 65, pp. 12-22, September/October 1986.

J8 "Experimental Characterization of VHF Propagation in a Mountain Environment", (with P. Lo Muzio, G. Guidotti and S. Pupolin) *Alta Frequenza*, pp. 273-282, August 1987.

J9 "Two Approaches for Waveform Coding of 9.6 kb/s Voiceband Data Signals Through 32 kb/s ADPCM", (with W.R. Daumer) *IEEE Trans. on Commun.*, vol. COM-36, pp. 382-385, March 1988.

J10 "Enhancement in the 32 kb/s ADPCM Algorithm for FSK Voiceband Data Signals", (with G. Bertocci) *IEEE Trans. on Commun.*, vol. COM-36, pp. 626-628, May 1988.

J11 "Performance Evaluation of Multiple Access Spread Spectrum Systems in the Presence of Interference," (with S. Pupolin and G. Guidotti) *IEEE Trans. on Vehicular Technology*, vol. VT-37, pp. 73-77, May 1988.

J12 "Digital Filter Design by Simulated Annealing," (with M. Marchesi) *IEEE Trans. on Circuits and Syst.*, vol. CAS-36, pp. 459-460, March 1989.

J13 "Extension of the Sampling Theorem to Exponentially Decaying Causal Functions", (with G.L. Pierobon) *IEEE Trans. on Signal Processing*, vol. SP-39, pp. 189-190, January 1991.

J14 "Digital Filter Bank with 65536 Channels for Spectrum Analysis", (with G. Guidotti and S.K. Mitra) *Signal Processing*, vol. 23, pp. 109-119, May 1991.

- J15 "Applications of Simulated Annealing for the Design of Special Digital Filters", (with M. Marchesi and A. Uncini), *IEEE Trans. on Signal Processing*, vol. SP-40, pp. 323-332, February 1992.
- J16 "On the Complex Backpropagation Algorithm", (with F. Piazza), *IEEE Trans. on Signal Processing*, vol. 40, pp. 967-969, April 1992.
- J17 "Performance Analysis of Trellis Coded Biorthogonal Sequences in a Variable Rate System", (with F. Chiaraluce, P. Falcioni and S. Andreoli), *European Transactions on Telecommunications*, vol. ETT-3, pp. 231-235, May/June 1992.
- J18 "Voiceband Data Speed Discrimination", *Intern. Journal of Digital and Analog Communication Systems*, John Wiley & Son publisher, vol. 5, pp. 69-76, April/June 1992.
- J19 "A Design Technique for Two-Dimensional Multiplierless FIR Filters for Video Applications", (with L. Banzato and G.M. Cortelazzo), *IEEE Trans. on Circuits and Systems for Video Technology*, vol. 2, pp. 273-284, September 1992.
- J20 "A Speech/Voiceband Data Discriminator", *IEEE Trans. on Commun.*, vol. COM-41, pp. 539-543, April 1993.
- J21 "Classification of Voiceband Data Signals Using the Constellation Magnitude" (with T.W. Goeddel), *IEEE Trans. on Commun.*, vol. COM 43, pp. 2759-2770, November 1995.
- J22 "Performance of non-coherent digital equalisers in DECT systems", (with A. Salloum and L. Tomba), *Electronics Letters*, vol. 32, pp. 97-98, January 1996.
- J23 "The Viterbi Algorithm for Sparse Channels" (with R. Marchesani), *IEEE Trans. on Commun.*, vol. COM 44, pp. 287-289, March 1996.
- J24 "Generalised Backpropagation Algorithm for Training a Data Predistorter with Memory in Radio Systems", (with F. Piazza, A. Uncini and M. Visintin), *Electronics Letters*, vol. 32, pp. 1925-1926, September 1996.
- J25 "Performance Comparison of Space Diversity and Equalization Techniques for Indoor Radio Systems" (with L. Tomba), *IEEE Trans. on Vehicular Technology*, vol. 46, pp. 358-368, May 1997.
- J26 "Performance of Digital DECT Radio Links Based on Semianalytical Methods" (with A. Salloum and L. Tomba), *IEEE J. Select. Areas Commun.*, vol. 15, pp. 667-676, May 1997.
- J27 "Further Results on Differential Detection of GMSK Signals" (with A. Salloum and L. Tomba), *IEEE Trans. on Commun.*, vol. 45, pp. 761-764, July 1997.
- J28 "Multitrellis Viterbi Algorithm for Indoor Systems using Narrowbeam Antennas" (with A. Salloum), *IEEE Trans. on Commun.*, vol. 45, pp. 900-903, August 1997.
- J29 "DECT-Based Return Channel for 42 GHz Broadband Wireless Systems" (with G. Coppola, G. Pierobon and A. Salloum), *Electronics Letters*, vol. 34, pp. 945-946, May 1998.
- J30 "Performance of the Viterbi Algorithm for Interleaved Convolutional Codes" (with L. Bettella and R. Marchesani), *IEEE Trans. on Vehicular Technology*, vol. 47, pp. 919-923, August 1998.
- J31 "Noncoherent Equalization of GMSK Using Complex Receiver Structures" (with P. Bisaglia and A.E. Jones), *IEEE Commun. Letters*, vol. 2, pp. 310-312, November 1998.
- J32 "A Least Squares Path Loss Estimation Approach to Handover Algorithms", (with F. Santucci), *IEEE Trans. on Vehicular Technology*, vol. 48, pp. 437-447, March 1999.
- J33 "Access protocols for cellular high-speed data services", (with A. Salloum, G. Pierobon and G. Coppola), *Int. Journal of Wireless Networks*, vol. 6, pp. 231-247, 1999.

- J34 “Complex Noncoherent Receivers for GMSK Signals”, (with P. Bisaglia and A.E. Jones), *IEEE J. Selected Areas Commun.*, vol. 17, pp. 1876-1885, November 1999.
- J35 “Worst Case Equalizer for Non-Coherent HIPERLAN Receivers”, (with P. Bisaglia, A. Salloum and L. Tomba), *IEEE Trans. on Commun.*, vol. 48, pp. 28-36, January 2000.
- J36 “Performance of Turbo Detection in a Variable Rate Wireless System Using Linear Block Codes and Interleaving”, (with P. Bisaglia and A.E. Jones), *IEEE Trans. on Vehicular Technology*, vol. 49, pp. 2189-2197, Nov. 2000.
- J37 “Joint Detection with Low Computational Complexity for Hybrid TD-CDMA Systems”, (with G. Sostrato), *IEEE J. Selected Areas Commun.*, vol. 19, pp. 245-253, Jan. 2001.
- J38 “Reduced-State Maximum Likelihood Multiuser Detection for Down-Link TD-CDMA Systems”, (with S. Sandre and G. Sostrato), *IEEE J. Selected Areas Commun.*, vol. 20, pp. 264-272, Feb. 2002.
- J39 “On the Comparison between OFDM and Single Carrier Modulation with a DFE Using a Frequency Domain Feedforward Filter”, (with S. Tomasin), *IEEE Trans. on Commun.*, vol. 50, pp. 947-955, June 2002.
- J40 “Equalization Methods in OFDM and FMT Systems for Broadband Wireless Communications”, (with S. Tomasin and L. Tomba), *IEEE Trans. on Commun.*, vol. 50, pp. 1413-1418, Sep. 2002.
- J41 “Block Iterative DFE for Single Carrier Modulation” (with S. Tomasin), *Electronics Letters*, vol. 38, pp. 1144-1145, Sep. 2002.
- J42 “Pre-Equalization with Sub-Band Channel Loading: a Technique to Maximize Throughput in Uplink OFDM-CDMA Systems”, (with P. Bisaglia and F. Tosato), *IEEE Trans. on Commun.*, vol. 53, pp. 564-568, April 2005.
- J43 “Pre-equalization Techniques for Downlink and Uplink TDD MC-CDMA Systems”, (with P. Bisaglia, L. Sanguinetti, M. Morelli and S. Pupolin), *Wireless Personal Communications.*, vol. 35, pp. 3-18, 2005.
- J44 “On Low-complexity Joint Detection Techniques for TD-CDMA”, (with F. Boccardi and G. Carnevale), *IEEE Trans. on Wireless Communications*, vol. 4, pp. 2027-2034, September 2005.
- J45 “Frequency Domain Interference Cancellation and Non-Linear Equalization for CDMA Systems”, (with S. Tomasin), *IEEE Trans. on Wireless Communications*, vol. 4, pp. 2329-2339, September 2005.
- J46 “Iterative Design and Detection of a DFE in the Frequency Domain”, (with S. Tomasin), *IEEE Trans. on Commun.*, vol. 50, pp. 1867-1875, November 2005.
- J47 “Frequency Domain Realization of Space-Time Receivers in Dispersive Wireless Channels”, (with F. Boccardi and G. Carnevale), *IEEE Trans. on Signal Processing*, vol. 55, pp. 313-326, January 2007.
- J48 “Joint Power Control and Receiver Optimization of CDMA Transceivers using Successive Interference Cancellation”, (with G. Carnevale and S. Tomasin), *IEEE Trans. on Commun.*, vol. 55, pp. 563-573, March 2007.
- J49 “Cross-layer Optimization for Multimedia Traffic in CDMA Cellular Networks”, (with D. Veronesi and S. Tomasin), *IEEE Trans. on Wireless Communications*, vol. 7, pp. 1379-1388, April 2008.
- J50 “Joint Optimum Linear Precoding and Power Control Strategies for Downlink MC-CDMA Systems”, (with P. Bisaglia and F. Boccardi), *IEEE Trans. on Commun.*, vol. 56, pp. 769-777, May 2008.
- J51 “Superimposed Sequences Versus Pilot Aided Channel Estimations for Next Generation DVB-T Systems”, (with A. Goljehani, S. Tomasin and L. Vangelista), *IEEE Trans. on Broadcasting*, vol. 55, pp. 140-144, March 2009.
- J52 “Coded Decision Directed Demodulation for Second Generation Digital Video Broadcasting Standard”, (with A. Vigato, S. Tomasin, L. Vangelista, V. Mignone and A. Morello), *IEEE Trans. on Broadcasting*, vol. 55, pp. 607-615, September 2009.

- J53 "On Channel Quantization and Feedback Strategies for Multiuser MIMO-OFDM Downlink Systems", (with S. Tomasin and M. Trivellato), *IEEE Trans. on Commun.*, vol. 57, pp. 2645-2654, Sept. 2009.
- J54 "Key Technologies for Next-Generation Terrestrial Digital Television Standard DVB-T2", (with L. Vangelista, S. Tomasin, C. Nokes, J. Stott, A. Filippi, M. Vlot, V. Mignone and A. Morello), *IEEE Communications Magazine*, October 2009.
- J55 "Single Carrier Modulation with Nonlinear Frequency Domain Equalization: An Idea Whose Time Has Come - Again", (with D. Falconer, R. Dinis and S. Tomasin), *Proceedings of the IEEE*, vol. 98, pp.69-96, January 2010.
- J56 "State Control in Networked Control Systems under Packet Drops and Limited Transmission Bandwidth", (with M. Trivellato), *IEEE Trans. on Commun.*, vol.58, pp. 611-622, Feb. 2010.
- J57 "A Simplified Greedy Algorithm for Joint Scheduling and Beamforming in Multiuser MIMO OFDM", (with E. Conte and S. Tomasin), *Communications Letters*, vol. 14, pp. 381-383, May 2010.
- J58 "A Comparison of Scheduling Strategies for MIMO Broadcast Channel with Limited Feedback on OFDM Systems", (with E. Conte and S. Tomasin), *EURASIP Journal on Wireless Communications and Networking*, article ID 968703, 12 pages, 2010.
- J59 "Per Sub-block Equalization of Very Long OFDM Blocks in Mobile Communications", (with P. Baracca, S. Tomasin, L. Vangelista and A. Morello), *IEEE Trans. on Commun.*, vol. 59, pp. 363-368, Feb. 2011.
- J60 "Constellation Quantization in Constrained Backhaul Downlink Network MIMO", (with P. Baracca and S. Tomasin), *IEEE Trans. on Commun.*, vol. 60, pp. 830-839, March 2012.
- J61 "A Practical Scheduling and Power/Constellation Allocation for Three Relay Networks", (with P. Baracca and S. Tomasin), *EURASIP Journal on Wireless Communications and Networking* 2012, 2012-128.
- J62 "Resource allocation with multicell processing, interference cancelation and backhaul rate constraint in single carrier FDMA systems", (with P. Baracca and S. Tomasin), *Physical Communication, Elsevier*, (2012), doi:10.1016/j.phycom.2012.09.003.

Technical Report and Articles Presented at Conferences:

- C1 "Spectral Analysis of the Powers of a Filtered Discrete White Noise", (with G.L. Cariolaro), University of Padova, Istituto di Elettrotecnica e di Elettronica, Internal memorandum, April 1985.
- C2 "Fast Evaluation of Error Rate in Fiber Optical Digital Systems with Correlated Symbols", (with S.G. Pupolin) presented at IEEE Intern. Symp. on Infor. Theory, Ithaca, New York, October 1977.
- C3 "FIR Digital Filters with Incremental Coefficient Values", (with L.E. Franks and F.S. Hill, Jr.), in Proc. Twenty-first Allerton Conference, Monticello, Illinois, pp. 993-1002, October 1983.
- C4 "New Classes of FIR Digital Filters with Ternary Coefficients", (with L.E. Franks and F.S. Hill, Jr.), in Proc. Intern. Symp. on Circuits and Systems, Montreal, pp. 37-40, May 1984.
- C5 "Heuristic Graphic Method to Design Finite Word Length FIR Digital Filters", in Proc. Intern. Symp. on Circuits and Systems, Kyoto, Japan, pp. 1129-1132, June 1985.

- C6 "Bit Error Probability of Spread Spectrum Systems in Random Field Strength Environments", (with S. Pupolin and G. Guidotti) in Proc. IEEE MONTECH '86, Conference on Antennas and Communications, Montreal, Canada, pp. 206-209, September 1986.
- C7 "Probability of Outage in Multiple Access Spread Spectrum Systems Due to Autointerference", (with S. Pupolin and G. Guidotti), in Proc. IEEE MILCOM '86, Monterey, California, pp. 211-214, October 1986.
- C8 "Effects of VHF Propagation on Data Transmission with Conventional and Spread Spectrum Modulations", (with C. Conticello, P. Lo Muzio and G. Guidotti) in Proc. AFCEA European Symposium, Rome, pp. 149-154, May 1987.
- C9 "Impulse Response Measurements and Characterization of Wideband VHF Radio Links", (with P. Lo Muzio, G. Guidotti and S. Pupolin) in Proc. AGARD Symposium, Rome, pp. 33.1-33.13, May 1987.
- C10 "Waveform Coding of 9.6 kb/s Voiceband Data Signals at 32 kb/s", (with W.R. Daumer) in Proc. Intern. Conf. on Commun., Seattle, pp. 49.1.1-49.1.4, June 1987.
- C11 "Prevention of Quantizer Overloading in the 32 kb/s ADPCM Algorithm", (with G. Bertocci) in Proc. Intern. Conf. on Commun., Seattle, pp. 42.1.1-42.1.4, June 1987.
- C12 "The Effect of Co-Channel and Co-Site Interferers in Spread Spectrum Systems", (with G. Guidotti) in Proc. EUROCON-88, European Conference on Electrotechnics, Stockholm, Sweden, pp. 399-403, June 1988.
- C13 "Detection of Structural Discontinuities by Using an Excitation with a Frequency Varying Exponentially", (with L. Rossi, C. Monti and G. Pierobon) in Proc. EUSPICO-88, European Signal Processing Conference, Grenoble, France, pp. 1365-1368, September 1988.
- C14 "Performance of a Digital Acquisition Circuit for Hybrid FH- DS Spread Spectrum Systems", (with G. Guidotti and S. Pupolin) in Proc. IEEE MILCOM'88, San Diego, California, pp. 54.2.1-54.2.5, October 1988.
- C15 "Finite Wordlength Digital Filter Design Using an Annealing Algorithm", (with M. Marchesi, G. Orlandi, F. Piazza and A. Uncini) in Proc. Intern. Conf. on ASSP, Glasgow, Scotland, pp. 861-864, May 1989.
- C16 "Detection of Modern Type and Bit Rate of FSK Voiceband Data Signals", in Proc. Intern. Conf. on Commun., Boston, pp. 35.6.1-35.6.5, June 1989.
- C17 "Results on the Application of Simulated Annealing Algorithm for the design of Digital Filters with Powers-of-Two Coefficients", (with M. Marchesi and A. Uncini) in Proc. Intern. Conf. on ASSP, Albuquerque, New Mexico, pp. 1301-1304, April 1990.
- C18 "Classification of Voiceband Data Signals", (with W.R. Daumer) in Proc. Intern. Conf. on Commun., Atlanta, pp. 1010-1013, April 1990.
- C19 "Design of Multi-Layer Neural Networks with Powers-of-Two Weights", (with M. Marchesi, G. Orlandi, F. Piazza and A. Uncini) in Proc. Intern. Symp. on Circuits and Systems, New Orleans, Louisiana, pp. 2951-2954, May 1990.
- C20 "A General Optimization Algorithm to Design FIR Filters with Power- of-Two Coefficients", (with M. Marchesi and A. Uncini), in Proc. EUSPICO-90, European Signal Processing Conference, Barcelona, Spain, pp. 565-568, September 1990.
- C21 "Complex Neural Networks for Equalizing Nonlinear Digital Radio Links", (with M. Marchesi, F. Piazza and A. Uncini) in Proc. Works- hop on Adaptive Algorithms: Applications and Non Classical Schemes, Bayona-Vigo, Spain, pp. 162-170, March 1991.
- C22 "Non-Linear Satellite Radio Links Equalized Using Blind Neural Net- works", (with M. Marchesi, F. Piazza and A. Uncini) in Proc. Intern. Conf. on ASSP, Toronto, pp. 1521-1524, May 1991.

- C23 "A Comparison between Real and Complex Valued Neural Networks in Communication Applications", (with M. Marchesi, F. Piazza and A. Uncini) in Proc. Intern. Conf. on Artificial Neural Networks, Espoo, Finland, pp. 1177-1180, June 1991.
- C24 "Random, Uniform, and Geometric Quantization Algorithms: A Comparative Study", (with S. Battista) in Proc. Intern. Conf. on Digital Signal Processing, Florence, Italy, pp. 75-80, September 1991.
- C25 "Comparative Analysis of Three Variable Rate Coding Systems for a Fixed Binary Modulation Scheme" (with F. Chiaraluce and P. Falcioni), in Proc. ICCT'92, Beijing, China, September 1992.
- C26 "A Neural Network Approach to Data Predistortion with Memory in Digital Radio Systems" (with F. Piazza and A. Uncini) in Proc. Intern. Conf. on Commun., Geneva, Switzerland, pp. 232-236, May 1993.
- C27 "Multitrellis Decomposition of the Viterbi Algorithm for Multipath Channels" (with G. Lubello and R. Marchesani) in Proc. Intern. Conf. on Commun., Geneva, Switzerland, pp. 746-750, May 1993.
- C28 "Uniform Vector Quantization Based on Cubic Lattice Points" (with S. Battista) in Proc. Intern. Conf. on Digital Signal Processing, Nicosia, Cyprus, pp. 210-215, July 1993.
- C29 "Analysis of Channel Noise in Orthogonally Multiplexed QAM Systems" (with G. Cariolaro, G. Michieletto and L. Vangelista) in Proc. Globecom'93, Houston, pp. 1990-1995, November 1993.
- C30 "Channel Estimators in Time Varying Multipath Environments" (with G. Lubello and R. Marchesani) in Proc. Intern. Conf. on HF Radio Systems and Techniques, York, UK, July 1994.
- C31 "Comparison of Four Learning Algorithms for Multilayer Perceptron with FIR Synapses" (with F. Piazza and A. Uncini) in Proc. IEEE Intern. Conf. on Neural Networks, pp. 309-314, June 1994.
- C32 "Learning Algorithms for Neural Networks with Finite Temporal Dynamic" (with F. Piazza and A. Uncini) in Proc. EUSIPCO-94, European Signal Processing Conference, Edinburgh, U.K., pp. 1799-1802, September 1994.
- C33 "Diversity Selection Combining and Non-Linear Equalization in DQPSK Indoor Radio Systems" (with R. Corvaja and L. Tomba) in Proc. CTMC'94, San Francisco, CA, pp. 100-104, November 1994.
- C34 "Performance of the Multitrellis Viterbi Algorithm for Sparse Channels" (with A. Salloum) in Proc. GLOBECOM'94, San Francisco, CA, pp. 1493-1497, November 1994.
- C35 "Effect of Equalization in Indoor and Outdoor Environments for DECT Radios" (with A. Staffoni and L. Tomba), in Proc. Intern. Conference on Commun., Seattle, WA, pp. 1168-1172, June 1995.
- C36 "Analysis of Timing Algorithms for Non-Coherent Receives in DECT Systems" (with A. Salloum and L. Tomba), in Proc. EPMCC'95 (European Personal and Mobile Communications Conference), Bologna, Italy, pp. 193-196, November 1995.
- C37 "Comparison Between Least Squares Path Loss Estimation and Averaging for Handover Algorithms" (with F. Santucci), in Proc. Vehic. Tech. Conf., Atlanta, GA, pp. 1326-1330, April 1996.
- C38 "A Least Squares Path Loss Estimation Approach to Handover Algorithms" (with F. Santucci), in Proc. Intern. Conf. on Commun., Dallas, TX, pp. 802-806, June 1996.
- C39 "An all Digital Receiver for DECT Radios" (with A. Salloum and L. Tomba), in Proc. Intern. Conf. on Commun., Dallas, TX, pp. 862-866, June 1996.
- C40 "Comparison of Timing Recovery Mechanisms for Non-Coherent DECT Systems", (with A. Salloum and L. Tomba), Lebanese Scientific Research Reports, vol. 1, pp. 19-32, July 1996.

- C41 "Performance of Least Squares Path Loss Estimation Handover Algorithms" (with F. Santucci), in Proc. Vehic. Tech. Conf., Phoenix, AZ, pp. 319-323, May 1997.
- C42 "Analysis of $\pi/4$ -DQPSK Modulation Including Nonlinear Amplifier and Comparison with GMSK", (with A. Salloum), Lebanese Scientific Research Reports, vol. 3, pp. 65-77, January 1998.
- C43 "Uplink Access Protocol for Multimedia Systems Based on DECT/ATM Layer", (with G. Coppola, G. Pierobon and A. Salloum), in Proc. Vehic. Tech. Conf., Ottawa, pp. 117-121, May 1998.
- C44 "DECT Receiver for Outdoor Channels" (with L. Tomba), in Proc. ACTS Mobile Communication Summit, Rhodes, Greece, pp. 733-738, June 1998.
- C45 "Differential Detection of GMSK with Channel Estimation for Equalization of Nonlinear Multipath Fading Channels" (with P. Bisaglia and A.E. Jones), Proc. Vehic. Tech. Conf., Houston, TX, pp. 2328-2332, May 1999.
- C46 "Joint Detection with Low Computational Complexity for Hybrid TD-CDMA Systems" (with G. Sostrato), in Proc. Vehic. Tech. Conf., Amsterdam, The Netherland, pp. 618-622, September 1999.
- C47 "Turbo Detection and Variable Rate Coding in Systems Using Linear Block Codes and Block Interleavers" (with P. Bisaglia and A.E. Jones), in Proc. Vehic. Tech. Conf., Amsterdam, The Netherland, pp. 1555-1559, September 1999.
- C48 "Achievable Bit Rates of DMT and FMT Systems in the Presence of Phase Noise and Multipath" (with G. Cherubini and L. Tomba), in Proc. Vehic. Tech. Conf., Tokyo, Japan, paper No. 5.10.05, May 2000.
- C49 "Digital Receiver Architecture for Multi-Standard Software Defined Radios" (with G.A. Mian and F. Momola), in Proc. 12-th Tyrrhenian International Workshop on Digital Communications, Portoferraio/Isola D'Elba, Italy, September 2000.
- C50 "Receiver Architectures for FMT Broadband Wireless Systems" (with S. Tomasin and L. Tomba), in Proc. Vehic. Tech. Conf., Rhodes, Greece, May 2001.
- C51 "Multiuser Detection for Down-link TD-CDMA Systems: a Maximum Likelihood Reduced State Approach" (with R. Sandre and G. Sostrato), in Proc. Intern. Conf. on Commun., Helsinki, June 2001.
- C52 "Channel Estimation with Reduced Complexity for Multicarrier Systems" (with S. Tomasin), in Proc. Intern. Symposium on Telecommunications, Tehran, Iran, pp. 626-629, September 2001.
- C53 "Frequency Domain DFE: System Design and Comparison with OFDM" (with S. Tomasin), IEEE 8th Symposium on Commun. and Vehic. Tech. in the Benelux, Delft, The Netherlands, October 2001.
- C54 "Transmit Gain Optimization for Space Time Block Coding Wireless Systems with Co-channel Interference" (with S. Tomasin), in Proc. IST Mobile & Wireless Telecommunications Summit, Thessaloniki, Greece, June 2002.
- C55 "Efficient Pre-Coding Schemes for FMT Broadband Wireless Systems" (with S. Tomasin), in Proc. PIMRC, Lisboa, Portugal, September 2002.
- C56 "A Generalized Least Squares Handover Algorithms for Wireless Systems" (with F. Santucci), in Proc. Vehic. Tech. Conf., Vancouver, Canada, September 2002.
- C57 "Iterative Decoding and Decision Feedback Equalization in the Frequency Domain" (with S. Tomasin), in Proc. Inter. Symposium on Telecommunications, Isfahan, Iran, pp. 698-702, August 2003.
- C58 "Equalization and Multiuser Interference Cancellation in CDMA Systems" (with S. Tomasin), in Proc. WPMC, Kanagawa, Japan, October 2003.
- C59 "Parallel and Successive Intereference Cancellation for MC-CDMA and their Near-Far Resistance" (with P. Bisaglia), in Proc. Vehic. Tech. Conf., Orlando, Florida, October 2003.

- C60 "Sub-band Loading for Pre-equalized Uplink OFDM-CDMA Systems", (with P. Bisaglia and F. Tosato) in Proc. Multi-carrier Spread Spectrum (MC-SS 2003) Conf., Oberpfaffenhofen, Sept. 2003.
- C61 "Performance Comparison of Single-User Pre-Equalization Techniques for Uplink MC-CDMA Systems" (with P. Bisaglia and S. Quitadamo) in Proc. GLOBECOM '03, San Francisco, California, December 2003.
- C62 "Performance Comparison of Frequency Domain Equalizers for the IEEE 802.16a WMAN Standard", (with S. Tomasin) in Proc. ICIT, Damascus, April 2004.
- C63 "A Dynamic Rate Uplink Multiple Access Scheme Based on FMT Modulation", (with Tomasin) in Proc. VTC 2004 Spring, Milan, May 2004.
- C64 "On the Selection of Adaptive Modulation and Coding Modes over OFDM", (with F. Tosato) in Proc. ICC 2004, Paris, June 2004.
- C65 "Soft-interference Cancellation for Down Link and Uplink MC-CDMA Systems", (with P. Bisaglia and M. Finco) in Proc. PIRMC 2004, Barcellona, Spain, September 2004.
- C66 "A Reduced Complexity Block Iterative DFE for Dispersive Wireless Applications", (with S. Tomasin) in Proc. VTC Fall , Los Angeles, September 2004.
- C67 "Space-time Receivers Realized in the Frequency Domain for Dispersive Wireless Channels", (with F. Boccardi and G. Carnevale) in Proc. VTC Fall , Los Angeles, September 2004.
- C68 "On the Coding-Spreading Trade-off in Downlink and Uplink MC-CDMA Systems", (with P. Bisaglia) in Proc. VTC Fall , Los Angeles, September 2004.
- C69 "Pre-equalization Techniques for Downlink and Uplink TDD MC-CDMA Systems", (with P. Bisaglia, M. Morelli, S. Pupolin and L. Sanguinetti) in Proc. WPMC 2004, Abano Terme, Italy, September 2004.
- C70 "A Frequency Domain Low-complexity Joint Detection Technique for TD-CDMA", (with F. Boccardi and G. Carnevale) in Proc. WPMC 2004, Abano Terme, Italy, September 2004.
- C71 "Energy Optimization of CDMA Transceiver Using Successive Interference Cancellation", (with G. Carnevale and S. Tomasin) in Proc. GLOBECOM 2004, Dallas, November 2004.
- C72 "Optimum Power Control and Ordering in SIC Receivers for Uplink CDMA Systems", (with G. Carnevale and S. Tomasin) in Proc. ICC 2005, Seoul, May 2005.
- C73 "Maximum Sum-Rate Linear Beamforming Strategies for Downlink TDD MC-CDMA Systems", (with P. Bisaglia and F. Boccardi), in Proc. ISWC 2005, Siena, Italy, September 2005.
- C74 "Pre-Equalization Techniques for MC-CDMA Systems without Cyclic Prefix", (with P. Bisaglia and F. Boccardi), in Proc. ISWC 2005, Siena, Italy, September 2005.
- C75 "SIC-VBLAST Receiver for Coded Uplink MIMO MC-CDMA Systems", (with P. Bisaglia, G. Carnevale and D. Bornancin), in Proc. PIMRC 2005, Berlin, Germany, September 2005.
- C76 "Optimization of SIC Receiver and CDMA Power Control by Discrete Stochastic Approximation", (with G. Carnevale and S. Tomasin), in Proc. ICICS, Bangkok, Thailand, December 2005.
- C77 "System Optimization of MC-CDMA with SIC Receiver by Discrete Stochastic Approximation", (with G. Carnevale and S. Tomasin), in Proc. WIRTEP, Rome, Italy, April 2006.
- C78 "MC-CDMA with SIC: Power Control by Discrete Stochastic Approximation and Comparison with OFDMA", (with G. Carnevale and S. Tomasin), in Proc. ICC 2006, Istanbul, June 2006.

- C79 “Linear Precoding for Downlink MC-CDMA Systems ”, (with F. Boccardi and P. Bisaglia), in Proc. WCNC, Hong Kong, March 2007.
- C80 “Multiple Frequency Offsets Estimation and Compensation for Cooperative Networks ”, (with S. Tomasin and D. Veronesi), in Proc. WCNC, Hong Kong, March 2007.
- C81 “Sum Power Minimization Under Rate Constraints in Multiuser OFDM Systems ”, (with D. Veronesi), in Proc. WCNC, Hong Kong, March 2007.
- C82 “On Determining the Sum Capacity of a Multi-spot OFDM System”, (with D. Veronesi), in Proc. VTC 2007, Dublin, Ireland, April 2007.
- C83 “Low-Rate Predictive Feedback for the OFDM MIMO Broadcast Channel”, (with D. E. Conte, S. Tomasin and M. Trivellato), in Proc. Tyrrhenian Workshop, Ischia, Italy, September 2007.
- C84 “Joint Low-Rate Feedback and Channel Quantization for the MIMO Broadcast Channel”, (with D. E. Conte, S. Tomasin and M. Trivellato), in Proc. IEEE Africon, Windhoek, Namibia, September 2007.
- C85 “Predictive Channel Quantization and Beamformer Design for MIMO-BC with Limited Feedback”, (with D. E. Conte, S. Tomasin and M. Trivellato), in Proc. GLOBECOM, Washington D.C., November 2007.
- C86 “Minimum Sum-Power Design of a Cooperative System Using the Amplify and Forward Protocol”, (with D. Veronesi), in Proc. ICSPC, Dubai, UAE , November 2007.
- C87 “Minimum Sum-Power Design of a Cooperative System Using the Decode and Forward Protocol”, (with D. Veronesi), in Proc. ICICS, Singapore, December 2007.
- C88 “Superimposed sequence channel estimation and pilot aided channel estimation: a throughput comparison ”, (with A. Goljhani, S. Tomasin, L. Vangelista), in Proc. WPMC, Jaipur, India, December 2007.
- C89 “Scheduling strategies for multiuser MIMO OFDM systems with limited feedback ”, (with E. Conte and S. Tomasin), in Proc. PIMRC, Cannes, France, September 2008.
- C90 “Soft detection of modulation diversity schemes for next generation digital terrestrial television”, (with A. Vigato, S. Tomasin, and L. Vangelista), in Proc. ISSSTA, Bologna, Italy, August 2008.
- C91 “On Estimation in Networked Control Systems with Random Delays and Partial Observation Losses ”, (with M. Trivellato), in Proc. ISITA 2008, Auckland, New Zealand, December 2008.
- C92 “Channel Quantization and Feedback Optimization in Multiuser MIMO-OFDM Downlink Systems ”, (with S. Tomasin and M. Trivellato), in Proc. GLOBECOM 2008, New Orleans, LA, Nov. 2008.
- C93 “Cross-Layer Design of Networked Control Systems ”, (with M. Trivellato), in Proc. ICC’09, Dresden, Germany, June 2009.
- C94 “Per Sub-block Equalization of OFDM for Mobile Digital Video Transmission ”, (with P. Baracca, S. Tomasin, L. Vangelista and A. Morello), in Proc. IBC’09, Amsterdam, Holland, September 2009.
- C95 “Per Sub-block Equalization and Channel Estimation for Next Generation Handheld DVB ”, (with P. Baracca, S. Tomasin, L. Vangelista and A. Morello), in Proc. ICUMT’09, St. Petersburg, Russia, October 2009.
- C96 “On Hard and Soft Detection of Space–Time Block Codes by a Novel Soft Output Sphere Decoder ”, (with A. Vigato, S. Tomasin and L. Vangelista), in Proc. ICUMT’09, St. Petersburg, Russia, October 2009.
- C97 “Receivers for MIMO-PLC channels: throughput comparison ”, (with A. Canova and P. Bisaglia), in Proc. ISPLC’10, Rio de Janeiro, Brasil, March 2010.

C98 “Optimization of Base Station Coordination and Power Allocation in Cellular Networks Downlink ”, (with P. Baracca and S. Tomasin), in Proc. ICCT’10, Nanjing, China, November 2010.

C99 “Equalization of OFDM for Doubly Very Selective Channels”, (with P. Baracca and S. Tomasin), in Proc. ICCT’10, Nanjing, China, Nov. 2010.

C100 “Downlink Multicell Processing Employing QAM Quantization under a Constrained Backhaul”, (with P. Baracca and S. Tomasin), in Proc. SPAWC’11, San Francisco, CA, June 2011.

C101 “A Frequency Domain Pre-Equalizer for MIMO-OFDM Mobile Communication Systems Employing Alamouti Coding”, (with P. Baracca and L. Vangelista), in Proc. SPAWC’11, San Francisco, CA, June 2011.

C102 “Power and Time Sharing Optimization for Three Half-Duplex Relay Networks”, (with P. Baracca and S. Tomasin), in Proc. AH-ICI2011, Kathmandu, Nepal, November 2011.

C103 “Preamble-based Channel Estimation in HomePlug AV Systems”, (with D. Altolini, S. Pupolin and R. Riva), in Proc. ISPLC’12, Beijing, China , March 2012.