

PUBLICATION RECORD

BOOKS

- [1] U. Mengali, *Teoria dei Sistemi di Comunicazione*, Editrice Tecnico Scientifica, Pisa, 1979
- [2a] L. F. Mojoli and U. Mengali, *Propagation in Line-of-Sight Radio Links: Part I*, Special Issue of TELETTRA Review, 1983
- [2b] L. F. Mojoli and U. Mengali, *Propagation in Line-of-Sight Radio-Links: Part II*, Special Issue of TELETTRA Review, 1985
- [3] U. Mengali and A. N. D'Andrea, *Synchronization Techniques for Digital Receivers*, Plenum Press, New York, 1997
- [4] U. Mengali e M. Morelli, *Trasmissione Numerica*, McGraw-Hill, Milano, 2001

JOURNAL PAPERS

- [1] E. Bozzoni and U. Mengali, "A General Analysis of the Performance of the Oscillating Limiter with Noiseless Signals", *IEEE Transactions on Communication Technology*, October 1966
- [2] U. Mengali, "Determinazione della Caratteristica Ottima dei Sistemi Nonlineari Privi di Memoria", *Alta Frequenza*, Luglio 1967
- [3] E. Bozzoni and U. Mengali, "Experimental Verification of a Model of the Oscillating Limiter", *IEEE Transactions on Communication Technology*, December 1967
- [4] E. Bozzoni and U. Mengali, "Comparison Between Oscillating Limiter and a First-Order Phase-Locked Loop", *IEEE Proceedings*, November 1968
- [5] E. Bozzoni and U. Mengali, "An Analysis of the Performance of the Oscillating Limiter Driven by FM Signals Corrupted by Noise", *IEEE Transactions on Aerospace and Electronic Systems*, May 1969
- [6] E. Bozzoni, G. Marchetti and U. Mengali, "Probability Density of the Click Duration in an Ideal FM-discriminator", *IEEE Transactions on Aerospace and Electronic Systems*, March 1970
- [7] E. Bozzoni, G. Marchetti, U. Mengali and F. Russo, "Extension of Viterbi's Analysis of the Cicle-Slipping in a First-Order Phase-Locked Loop", *IEEE Transactions on Aerospace and Electronic Systems*, July 1970
- [8] M. Mancianti, U. Mengali and L. Verrazzani, "Ottimizzazione dei Segnali in un Sistema di Trasmissione con Canale di Reazione", *Alta Frequenza*, Ottobre 1970
- [9] U. Mengali, "Phase Noncoherent Reception of Binary FSK Signals Using Post-Decision Feedback", *IEEE Transactions on Communication Technology*, February 1971
- [10] U. Mengali, "A Self Bit Synchronizer Matched to the Signal Shape", *IEEE Transactions on Aerospace and Electronic Systems*, Vol. 7, pp. 686-693, July 1971

- [11] U. Mengali, "An Alternative Expression for the Probability Density Function of the Phase-Error in a Phase-Locked Loop", *IEEE Proceedings*, September 1971
- [12] U. Mengali, "A Digital-Data-Transition Tracking Loop as a Practical Implementation of an Optimum Self Bit Synchronizer", *IEEE Transactions on Aerospace and Electronic Systems*, January 1971
- [13] U. Mengali, "Phase Noncoherent Detection of M-ary Orthogonal Signals in Sequential Decision Feedback", *Alta Frequenza*, November 1971
- [14] G. Marchetti and U. Mengali, "Optimum and Suboptimum Synchronizers for Binary FSK Communication Systems", *IEEE Transactions on Aerospace and Electronic Systems*, September 1972
- [15] U. Mengali, "A New Analysis of the Digital Data Transition Tracking Loop", *Alta Frequenza*, November 1972
- [16] U. Mengali, "Noise Performance of a Gated Phase-Locked Loop", *IEEE Transactions on Aerospace and Electronic Systems*, Vol. 9, pp. 55-58, January 1973
- [17] U. Mengali, "Acquisition Behavior of Generalized Tracking Systems in the Absence of Noise", *IEEE Transactions on Communications*, Vol. 21, pp. 820-826, July 1973
- [18] U. Mengali, "An Alternative Signaling Scheme for Sequential Decision Feedback", *IEEE Proceedings*, October 1973
- [19] U. Mengali, "A Signaling Scheme for 4PSK Transmissions with Sequential Decision Feedback", *Alta Frequenza*, March 1974
- [20] U. Mengali, "Acquisition Behavior of Tracking Loops Operating in the Frequency-Search Mode", *IEEE Transactions on Aerospace and Electronic Systems*, September 1974
- [21] U. Mengali, "Statistical Behavior of Second-Order Phase-Locked Loops in the Presence of a Mixture of Impulsive and Gaussian Noise", *IEEE Transactions on Communications*, Vol. 22, pp. 1877-1881, November 1974
- [22] U. Mengali, "Limiting the Impulsive Noise in a PLL", *IEEE Transactions on Aerospace and Electronic Systems*, Vol. 11, pp. 514-518, July 1975
- [23] U. Mengali, "Synchronization of QAM Signals in the Presence of ISI", *IEEE Transactions on Aerospace and Electronic Systems*, Vol. 12, pp. 556-560, September 1976
- [24] R. Dogliotti and U. Mengali, "Tracking Loops for Carrier Reconstruction in Vestigial Sideband Suppressed-Carrier Data Transmission", *IEEE Transactions on Communications*, Vol. 25, March 1977
- [25] U. Mengali, "Timing Recovery in Optical Data Transmission", *Optical and Quantum Electronics*, Vol. 9, pp. 383-391, September 1977
- [26] U. Mengali, "Joint Phase and Timing Acquisition in Data Transmission", *IEEE Transactions on Communications*, Vol. 25, pp. 1174-1185, October 1977
- [27] U. Mengali and E. Pezzani, "Tracking Properties of Phase-Locked-Loops in Optical Communication Systems", *IEEE Transactions on Communications*, Vol. 26, pp. 1811-1818, December 1978

- [28] F. Andreucci and U. Mengali, "Timing Extraction in Optical Transmissions", *Optical and Quantum Electronics*, Vol. 10, pp. 445-458, November 1978
- [29] U. Mengali and G. Pirani, "Timing Jitter Growth in a Chain of Regenerative Repeaters for Optical Fiber Transmission", *IEE Proceedings, Pt. G*, Vol. 127, pp. 153-162, June 1980
- [30] U. Mengali and G. Pirani, "Jitter Accumulation in PAM Systems", *IEEE Transactions on Communications*, Vol. 28, pp. 1172-1183, August 1980
- [31] A. Luvison, U. Mengali and G. Pirani, "A Simple Timing Circuit for Optical PCM Repeaters", *Optical and Quantum Electronics*, Vol. 13, pp. 309-322, 1981
- [32] A. Del Pistoia, U. Mengali and R. Molpen, "Effect of Coding on the Jitter Accumulation in Baseband Digital Transmission", *IEEE Transactions on Communications*, August 1982
- [33] A. Del Pistoia, G. Giubilei and U. Mengali, "Equivalent Model of a Clock Recovery Circuit", *IEEE Transactions on Communications*, October 1983
- [34] N. A. D'Andrea, U. Mengali and R. Reggiannini, "Synchronization of CPM Signals", in E. Biglieri and G. Prati (Editors), *Digital Communications*, Elsevier Science Publishers, Amsterdam, 1986
- [35] N. A. D'Andrea and U. Mengali, "A Simulation Study of Clock Recovery in QPSK and 9-QPRS Systems", *IEEE Transactions on Communications*, October 1986
- [36] N. A. D'Andrea and U. Mengali, "Performance Analysis of the Delay Line Clock Regenerator", *IEEE Transactions on Communications*, Vol. 34, pp. 321-328, April 1986
- [37] N. Calia and U. Mengali, "Multiple Diversity in Microwave FM Radio Systems", *Alta Frequenza*, January 1986
- [38] N. A. D'Andrea, U. Mengali and M. Moro, "Nearly Optimum Prefiltering in Clock Recovery", *IEEE Transactions on Communications*, Vol. 34, pp. 1061-1068, November 1986
- [39] N. A. D'Andrea, U. Mengali and R. Reggiannini, "Carrier Phase and Clock Recovery for Continuous Phase Modulated Signals", *IEEE Transactions on Communications*, Vol. 35, pp. 1095-1101, October 1987
- [40] A. N. D'Andrea, U. Mengali and R. Reggiannini, "Carrier Phase Recovery for Narrow-Band Polyphase Shift Keyed Signals", *Alta Frequenza*, pp. 575-581, Dec. 1988
- [41] M. Moeneclaey and U. Mengali, "Sufficient Conditions on Trellis-Coded Modulation for Code-Independent Synchronizer Performance", *IEEE Transactions on Communications*, Vol. 38, pp. 595-601, May 1990
- [42] A. N. D'Andrea, U. Mengali, "Performance of a Quadricorrelator Driven by Modulated Signals", *IEEE Transactions on Communications*, Vol. 38, pp. 1952-1957, Nov. 1990
- [43] U. Mengali, A. Sandri and S. Spalvieri, "Phase Ambiguity Resolution in Trellis-Coded Modulations", *IEEE Transactions on Communications*, pp. 2087-2088, Dec. 1990
- [44] A. N. D'Andrea, U. Mengali and R. Reggiannini, "A Digital Approach to Clock Recovery in Generalized Minimum Shift Keying", *IEEE Transactions on Vehicular Technology*, Vol. 39, pp. 227-234, August 1990

- [45] M. Luise and U. Mengali, "A New Interpretation of the Average Matched Filter for MSK-Type Receivers", *IEEE Transactions on Communications*, pp.14-16, Jan. 1991
- [46] A. N. D'Andrea, U. Mengali and G. Vitetta, "Detection of Coded PSK with Unknown Carrier Phase", in E.Biglieri and M.Luise (Editors), *Coded Modulation and Bandwidth-Efficient Transmission*, Elsevier Science Publishers, Amsterdam, 1992
- [47] A. N. D'Andrea, U. Mengali, "Design of Quadricorrelators for Automatic Control System", *IEEE Transactions on Communications*, Vol. 41, pp.988-997, June 1993
- [48] A. N. D'Andrea, U. Mengali and G. M. Vitetta, "Multiple Phase Synchronization in Continuous Phase Modulation", *Digital Signal Processing, Academic Press*, pp. 188-198, July 1993
- [49] A. N. D'Andrea, U. Mengali and R. Reggiannini, "The Modified Cramer-Rao Bound and Its Applications to Synchronization Problems", *IEEE Transactions on Communications*, Vol. 42, No 2/3/4, pp.1391-1399, Feb./March/April 1994
- [50] A. N. D'Andrea, U. Mengali and G. M. Vitetta, "Approximate ML Decoding of Coded PSK with No Explicit Carrier Phase Reference", *IEEE Transactions on Communications*, Vol. 42, No 2/3/4, pp.1033-1039, Feb./March/April 1994
- [51] N. A. D'Andrea, F. Guglielmi, U. Mengali and A. Spalvieri, "Design of Transmit and Receive Filters for Data Communications", *IEEE Transactions on Communications*, Vol. 42, No 2/3/4, pp.357-359, Feb./March/April 1994
- [52] A. N. D'Andrea, U. Mengali, "Noise Performance of Two Frequency-Error Detectors Derived from Maximum Likelihood Estimation Methods", *IEEE Transactions on Communications*, Vol. 42, No 2/3/4, pp.793-802, Feb./March/April 1994
- [53] U. Mengali, R. Pellizzoni and A. Spalvieri, "Soft-Decision Based Node Synchronization for Viterbi Decoders", *IEEE Transactions on Communications*, Vol. 43, pp. 2532-2539, Sept. 1995
- [54] A. N. D'Andrea, A. Diglio and U. Mengali, "Symbol-Aided Channel Estimation with Non-selective Rayleigh Fading Channels", *IEEE Transactions on Vehicular Technology*, Vol. 44, pp.41-49, Feb. 1995
- [55] A. N. D'Andrea, A. Ginesi and U. Mengali, "Frequency Detectors for CPM Signals", *IEEE Transactions on Communications*, Vol. 43, pp.1828-1837, April 1995
- [56] U. Mengali and M. Morelli, "Decomposition of M-ary CPM Signals into PAM Waveforms", *IEEE Transactions on Information Theory*, pp. 1257-1264, Sept. 1995
- [57] G. M. Vitetta, D. P. Taylor and U. Mengali, "Double-Filter Receivers for PSK Signals Transmitted over Rayleigh Frequency-Flat Fading Channels", *IEEE Transactions on Communications*, Vol. 44, pp.686-695, June 1996
- [58] A. N. D'Andrea, U. Mengali and M. Morelli, "Symbol Timing Estimation with CPM Modulation", *IEEE Transactions on Communications*, Vol. 44, pp. 1362-1371, Oct. 1996

- [59] U. Mengali and M. Morelli, "Data-Aided Frequency Estimation for Burst Digital Transmission", *IEEE Transactions on Communications*, Vol. 45, pp. 23-25, Jan. 1997
- [60] W. S. Leon, U. Mengali and D. P. Taylor, "Equalization of Linearly Frequency Selective Fading Channels", *IEEE Transactions on Communications*, Vol. COM-45, pp.1501-1503, Dec. 1997
- [61] G. M. Vitetta, U. Mengali and D. P. Taylor, "Optimal Noncoherent Detection of FSK Signals Transmitted over Linearly Time-Selective Rayleigh Fading Channels", *IEEE Transactions on Communications*, Vol. 45, pp.1417-1425, Nov. 1997
- [62] M. Morelli, U. Mengali and G. M. Vitetta, "Joint Phase and Timing Recovery with CPM Signals", *IEEE Transactions on Communications*, Vol. 45, pp. 867-876, July 1997
- [63] M. Morelli, A. N. D'Andrea and U. Mengali, "Feedforward ML-Based Timing Estimation with PSK Signals", *IEEE Communications Letters*, Vol. 1, pp. 80-82, May 1997
- [64] G. M. Vitetta, U. Mengali and D. P. Taylor, "Blind Detection of CPM Signals Transmitted over Frequency-Flat Fading Channels", *IEEE Transactions on Vehicular Technology*, Vol. 47, pp. 961-968, Aug. 1998
- [65] F. Gini, R. Reggiannini and U. Mengali, "The Modified Cramer-Rao Bound in Vector Parameter Estimation", *IEEE Transactions on Communications*, Vol. COM-46, pp. 52-60, Jan. 1998
- [66] G. M. Vitetta, U. Mengali and D. P. Taylor, "Error Probability with Incoherent Diversity Reception of FSK Signals Transmitted over Fast Rician Fading Channels", *IEEE Transactions on Communications*, Vol. 46, pp. 1443-1447, Nov. 1998
- [67] M. Morelli and U. Mengali, "Feedforward Frequency Estimation for PSK: A Tutorial Review", *European Transactions on Telecommunications*, Vol. 2, pp. 103-116, March/April 1998
- [68] M. Morelli and U. Mengali, "Feedforward Carrier Frequency Estimation with MSK-Type Signals", *IEEE Communications Letters*, Vol. 2, pp. 235-237, Aug. 1998
- [69] M. Morelli, U. Mengali, G. M. Vitetta, "Further Results in Carrier Frequency Estimation for Transmissions over Flat Fading Channels", *IEEE Communications Letters*, Vol. 2, pp. 327-330, Dec. 1998
- [70] M. Morelli, A. N. D'Andrea and U. Mengali, "Feedforward Estimation Techniques for Carrier Recovery in 16-QAM Modulation", in *Broadband Wireless Communications*, M.Luise and S.Pupolin (Eds), Springer-Verlag, London, 1998
- [71] U. Mengali, G. M. Vitetta and D. P. Taylor, "Excess Bandwidth is Necessary for ISI-Free Double-Filter Receivers", *IEEE Communications Letters*, Vol. 2, pp. 48-50, Feb. 1998
- [72] G. M. Vitetta, U. Mengali and D. P. Taylor, "Double-Filter Differential Detection of PSK Signals Transmitted over Linearly Time-Selective Rayleigh Fading Channels", *IEEE Transactions on Communications*, Vol. 47, pp. 239-247, Feb. 1999
- [73] G. M. Vitetta, U. Mengali and M. Morelli, "Differential Detection Algorithms for MSK Signals over AWGN and Frequency-Flat Rayleigh

- Fading Channels", *IEEE Transactions on Communications*, Vol. 47, pp. 1820-1827, Dec. 1999
- [74] M. Morelli and U. Mengali, "Joint Frequency and Timing Recovery for MSK-Type Modulation", *IEEE Transactions on Communications*, Vol. 47, pp. 938-946, June 1999
- [75] A. D'Amico, A. N. D'Andrea and U. Mengali, "Feedforward Joint Phase and Timing Estimation with OQPSK Modulation", *IEEE Transactions on Vehicular Technology*, Vol. 48, pp. 824-832, May 1999
- [76] G. M. Vitetta, U. Mengali and D. P. Taylor, "An Error Probability Formula for Noncoherent Orthogonal Binary FSK with Dual Diversity on Correlated Rician Channels", *IEEE Communications Letters*, Vol. 3, pp. 43-45, Feb. 1999
- [77] G. M. Vitetta, U. Mengali and D. P. Taylor, "Error Probability of FSK Incoherent Diversity Reception with Fast Rice Fading", *International Journal of Wireless Information Networks*, Plenum, Vol. 6, pp. 107-118, April 1999
- [78] A. Ginesi, U. Mengali and M. Morelli, "Symbol and Superbaud Timing Recovery in Multi-h Continuous Phase Modulation", *IEEE Transactions on Communications*, Vol. 47, pp. 664-666, May 1999
- [79] M. Morelli and U. Mengali, "An Improved Frequency Offset Estimator for OFDM Applications", *IEEE Communications Letters*, Vol. 3, pp. 75-77, March 1999
- [80] A. D'Amico, A. N. D'Andrea and U. Mengali, "Feedforward Synchronization Schemes for MSK-Type Signals", *European Transactions on Telecommunications*, Vol. 10, pp. 597-607, Nov./Dec., 1999
- [81] G. M. Vitetta and U. Mengali, "A Noncoherent Receiver for Interleaved Trellis-Coded CPFSK Signals Transmitted over Frequency-Flat Fading Channels", *IEEE Transactions on Vehicular Technology*, Vol. 49, pp. 193-201, Jan. 2000
- [82] M. Morelli and U. Mengali, "Carrier-Frequency Estimation for Transmissions over Selective Channels", *IEEE Transactions on Communications*, Vol. 48, pp. 1580-1589, Sept. 2000
- [83] M. Morelli, A. N. D'Andrea and U. Mengali, "Frequency Ambiguity Resolution in OFDM Systems", *IEEE Communications Letters*, Vol. 4, pp. 134-136, April 2000
- [84] V. Lottici, A. N. D'Andrea and U. Mengali, "A New Carrier Frequency Loop for OFDM Systems", *IEEE Trans. on Consumer Electronics*, Vol. 46, No 4, pp. 970-979, Nov. 2000
- [85] M. Morelli and U. Mengali, "A Comparison of Pilot-Aided Channel Estimation Methods for OFDM Systems", *IEEE Transactions on Signal Processing*, Vol. 49, pp. 3065-3073, Dec. 2001
- [86] M. Luise, U. Mengali, M. Moeneclaey, J. G. Proakis, E. Stroem, W. H. Tranter, "Guest editorial-signal synchronization in digital transmission systems", *IEEE Journal on Selected Areas on Communications*, Vol. 19, pp. 2293-2297, Dec. 2001
- [87] M. Morelli, A. N. D'Andrea and U. Mengali, "Feedback Frequency Synchronization for OFDM Applications", *IEEE Communications Letters*, Vol. 5, pp. 28-30, Jan. 2001

- [88] M. Morelli and U. Mengali, "Frequency Estimation for the Downlink of the UMTS-TDD Component", *IEEE Transactions on Wireless Communications*, Vol. 1, pp.554-557, Oct. 2002
- [89] M. Morelli, A. N. D'Andrea and U. Mengali, "Carrier Frequency Estimation for Space-Diversity Reception over Selective Channels", *IEE Proceedings-Communications*, Vol. 149, pp.58-64, Feb. 2002
- [90] V. Lottici, A. N. D'Andrea and U. Mengali, "Channel Estimation for Ultra-Wideband Communications", *IEEE Journal on Selected Areas in Communications*, Vol. 20, pp. 1638-1645, Dec. 2002
- [91] M. Luise, U. Mengali, M. Morelli: "Synchronization in Digital Communication Systems", *Wiley Encyclopedia of Telecommunications and Signal Processing*, John Wiley and Sons, 2003
- [92] A. D'Amico, U. Mengali and M. Morelli, "Channel Estimation for the Uplink of a DS-CDMA System" *IEEE Transactions on Wireless Communications*, Vol. 2, No 6, pp. 1132-1137, November 2003
- [93] M. Morelli, U. Mengali and A. Masciarelli, "Channel Estimation for the Downlink of the UMTS TDD Component", *IEEE Transactions on Communications*, pp. 595-604, April 2004
- [94] A. D'Amico, U. Mengali and M. Morelli, "DOA and Channel Parameter Estimation for Wideband CDMA Systems" *IEEE Transactions on Wireless Communications*, Vol. 3, pp. 1942-1947, November 2004
- [95] M. Morelli, L. Sanguinetti and U. Mengali, "Channel Estimation and Tracking for MC-CDMA Signals", *European Transactions on Telecommunications*, pp. 249-258, May-June 2004
- [96] C. Carbonelli, A. A. D'Amico, U. Mengali and M. Morelli, "Channel Acquisition and Tracking for DS-CDMA Uplink Transmissions", *IEEE Transactions on Communications*, pp. 1930-1939, Nov. 2005
- [97] M. Morelli, L. Sanguinetti, U. Mengali, "Channel Estimation for Adaptive Frequency-Domain Equalization", *Transactions on Wireless Communications*, pp. 2508-2518, Sept. 2005
- [98] A. D'Amico, U. Mengali and L. Taponecco, "Impact of MAI and Channel Estimation Errors on the Performance of Rake Receivers in UWB Systems", *IEEE Transactions on Wireless Communications*, pp. 2435-2440, Sept. 2005
- [99] A. D'Amico and U. Mengali, "Frame Frequency Estimation in Ultra-Wideband Communications", *IEEE Transactions on Wireless Communications*, Vol. 5, pp. 166-175, January 2006
- [100] A. D'Amico and U. Mengali, "GLRT Receivers for UWB Systems", *IEEE Communications Letters*, pp. 487-489, June 2005
- [101] C. Carbonelli and U. Mengali, "Synchronization Algorithms for UWB Signals", *IEEE Transactions on Communications*, Vol. 54, pp. 329-338, February 2006
- [102] C. Carbonelli and U. Mengali, "M-PPM Noncoherent Receivers for UWB Applications", *IEEE Transactions on Wireless Communications*, Vol. 5, pp. 2285-2294, August 2006
- [103] A. D'Amico, U. Mengali and L. Taponecco, "Synchronization for Differential Transmitted Reference UWB Receivers", *IEEE Transactions on Wireless Communications*, Vol. 6, pp. 4154-4163, November 2007

- [104] A. D'Amico, U. Mengali and E. Arias-de-Reyna, "Energy-Detection UWB Receivers with Multiple Energy Measurements", *IEEE Transactions on Wireless Communications*, Vol. 6, pp. 2630-2639, July 2007
- [105] M. Morelli, L. Sanguinetti and U. Mengali, "A Low Complexity Receiver with Interference Cancellation for Power-Controlled MC-CDMA Downlink Transmissions", *European Transactions on Telecommunications*, pp. 631-638, November-December 2006
- [106] A. D'Amico, U. Mengali and L. Taponecco, "Energy-Based TOA Estimation", *IEEE Transactions on Wireless Communications*, Vol. 7, pp. 838-847, March 2008
- [107] A.D'Amico and U.Mengali, "Code-Multiplexed UWB Transmitted-Reference Radio", *IEEE Transactions on Communications*, Vol. 56, pp. 2125-2132, December 2008.
- [108] A.D'Amico and U.Mengali, "Code-Multiplexed Transmitted-Reference UWB Systems in a Multi-User Environment", *IEEE Transactions on Communications*, Vol. 58, pp.966-974, March 2010
- [109] A. D'Amico, U. Mengali and L. Taponecco, "TOA Estimation with the IEEE 802.15.4a Standard", under review in the *IEEE Transactions on Wireless Communications*.
- [110] Y.Karisan, D.Dardari, S.Gezici, A. A. D'Amico and U. Mengali, "Performance Limits on Range Estimation in Cognitive Radio Systems", submitted to *IEEE Transactions on Wireless Communications*.

CONFERENCE PAPERS

- [1] E. Bozzoni and U. Mengali, "Stato Attuale delle Conoscenze sul Limitatore Oscillante", *Riunione Annuale AEI*, San Remo, Italy, 1967
- [2] U. Mengali, "Statistical Dynamics of a First-Order Phase-Locked Loop", *Proceeding International Telecommunication Conference*, Los Angeles, California, 1972
- [3] F. Grandoni and U. Mengali, "Transient Phenomena in a Phase-Locked Loop with a Noisy Reference", *Proceedings National Telecommunication Conference*, Houston, Texas, 1972
- [4] R. Dogliotti, U. Mazzei and U. Mengali, "Decision Directed Carrier Synchronization for Data Transmission Systems", *Proceedings International Conference on Communications*, San Francisco, California, 1975
- [5] R. Dogliotti and U. Mengali, "Design and Performance of an All-Digital Receiver for Multilevel AM-SSB Data Transmission", *Proceedings ISCAS*, Munich, W. Germany, 1976
- [6] M. Mancianti, P. Marrucci and U. Mengali, "Simulation Study of a Synchronization Algorithm for SSB-AM Data Transmission", *Proceedings National Telecommunication Conference*, Birmingham, Alabama, 1978
- [7] M. Mancianti, U. Mengali and R. Reggiannini, "A Fast Start-Up Algorithm for Channel Parameter Acquisition in SSB-AM Data

- Transmission", *Proceedings International Conference on Communications*, Boston, Massachusetts, 1979
- [8] R. Dogliotti, A. Luvison, U. Mengali and G. Pirani, "Timing Jitter Performance Evaluation in a Chain of Optical Repeaters", *Proceedings ISCAS*, Houston, Texas, 1980
- [9] U. Mengali and G. Pirani, "Jitter Accumulation in PAM Systems Using PLL's or Resonant Circuits for Timing Extraction", *Proceedings International Conference on Communications*, Houston, Texas, 1980
- [10] A. Del Pistoia, U. Mengali, R. Molpen and G. Pellegrini, "Line Encoding and Jitter Accumulation in a Chain of Regenerative Repeaters", *Proceedings ISCAS*, Rome, Italy, 1982
- [11] U. Mengali, "A New Approach to the Pulse Shaping Problem in Timing Recovery", *International Tirrenia Workshop on Digital Communications*, Tirrenia, Italy, September 1983
- [12] N. A. D'Andrea and U. Mengali, "A Simulation Study of Clock Recovery in QAM and QPRS Systems", *Proceedings International Conference on Communications*, Chicago, Illinois, 1985
- [13] N. A. D'Andrea, U. Mengali and M. Moro, "Pulse Shaping in Clock Recovery", *Proceedings International Conference on Communications*, Toronto, Canada, 1986
- [14] U. Casiraghi and U. Mengali, "Relationship Between BER Performance at 64 Kbit/sec and at the Radio System Bit Rate", *European Conference on Radio-Relay Systems*, Munich, W.Germany, 1986
- [15] U. Casiraghi and U. Mengali, "Comparison Between Some Outage Prediction Methods for Microwave Digital Radio", *17th European Microwave Conference*, Rome, Italy, 1987
- [16] U. Mengali et al. "Carrier and Clock Recovery in Serial Demodulation of Offset-Binary Modulation Schemes", *Proceedings International Conference on Communications*, Seattle, Washington, 1987
- [17] N. A. D'Andrea and U. Mengali, "Tracking Performance of Synchronizers Driven by Trellis-Code Modulated Signals", *Proceedings International Conference on Communications*, Philadelphia, Pennsylvania, 1988
- [18] E. Carpine, A. N. D'Andrea, U. Mengali and G. Russo, "Comparative Study of Modulation Techniques for Microwave Digital Radios", *Proceedings Global Communications Conference (GLOBECOM)*, Hollywood, Florida, 1988
- [19] A. N. D'Andrea, U. Mengali and R. Reggiannini, "Comparison of Carrier Recovery Methods for Narrow-Band Polyphase Shift Keyed Signals", *Proceedings Global Communications Conference (GLOBECOM)*, Hollywood, Florida, 1988
- [20] A. N. D'Andrea, M. Mariano, U. Mengali and S. Spalvieri, "MMSE Baseband Combiner for Microwave Digital Radio", *Proceeding 2nd European Conference on Radio Relay Systems*, Abano terme, Padova, 17-21 April 1989
- [21] F. Guglielmi, C. Luschi, U. Mengali and S. Spalvieri, "Performane Evaluation of Baseband Cross-Pol Cancellers", *Proceeding 2nd European Conference on Radio Relay Systems*, Abano terme, Padova, 17-21 April 1989

- [22] A. N. D'Andrea, U. Mengali and R. Reggiannini, "Carrier Phase-Independent Clock Recovery for Generalized Minimum Shift Keying", *Proceedings International Conference on Circuit and Systems*, Singapore, 1990
- [23] A. N. D'Andrea, U. Mengali, "Performance of a Frequency Detector Based on the Maximum Likelihood Principle", *Proceedings Global Communications Conference (GLOBECOM)*, Orlando, Florida, Dec. 6-9, 1992
- [24] A. N. D'Andrea, A. Diglio and U. Mengali, "Symbol-Aided Channel Estimation with Non-selective Rayleigh Fading Channels", *Proceedings International Conference on Communications*, New Orleans, Louisiana, May 1-5, 1994
- [25] A. N. D'Andrea, A. Ginesi and U. Mengali, "Digital Carrier Frequency Estimation for Multilevel CPM Signals", *Proceedings International Conference on Communications*, Seattle, WA, June 18-22, 1995
- [26] G. M. Vitetta, D. P. Taylor and U. Mengali, "Blind Receivers for PSK Signals Transmitted over Rayleigh Frequency-Flat Fading Channels", *Proceedings Global Communications Conference (GLOBECOM)*, Singapore, Nov. 13-17, 1995
- [26] U. Mengali and M. Morelli, "Data-Aided Frequency Estimation for Burst Digital Transmission", *Proceedings International Symposium on Synchronization*, pp. 20-27, Essen, Dec. 14-15 1995
- [27] G. M. Vitetta, U. Mengali, D. P. Taylor, "A Blind Detection Technique for CPM Signals Transmitted over Frequency-Flat Fading Channels", *Proceedings Global Communications Conference (GLOBECOM)*, London, Nov. 18-22, 1996
- [28] G. M. Vitetta, U. Mengali, D. P. Taylor, "Noncoherent Detection of FSK Signals Transmitted over Linearly Time-Selective Rayleigh Fading Channels", *Proceedings International Conference on Communications*, Montreal, June 1997
- [29] M. Morelli, U. Mengali and G. M. Vitetta, "Joint Phase and Timing Recovery with CPM Signals", *Proceedings International Conference on Communications*, Montreal, June 1997
- [30] M. Morelli, A. N. D'Andrea and U. Mengali, "Feedforward Estimation Techniques for Carrier Recovery in 16-QAM Modulation", *9-th Tyrrhenian International Workshop on Digital Communications*, Lerici, Italy, September 1997. Also published in the book "Broadband Wireless Communications" by M.Luise and S.Pupolin (Eds), Springer-Verlag, London, 1998
- [31] G. M. Vitetta, U. Mengali, D. P. Taylor, "Double-Filter Differential Detection of PSK Signals Transmitted over Linearly Time-Selective Rayleigh Fading Channels", *Proceedings International Conference on Communications*, Atlanta, GA, USA, June 1998
- [32] G. M. Vitetta, U. Mengali, "A Noncoherent Receiver for Interleaved Trellis-Coded CPFSK Signals Transmitted over Frequency-Flat Fading Channels", *Proceedings Global Communications Conference (GLOBECOM)*, Sydney, Australia, November 1998

- [33] M. Morelli, A. N. D'Andrea and U. Mengali, "Feedback Frequency Synchronization for OFDM Applications", *Proceedings Global Communications Conference (GLOBECOM)*, Rio de Janeiro, 5-9 Dec., 1999
- [34] M. Morelli, U. Mengali and A. Masciarelli, "Channel Estimation for the Downlink of the UMTS-FDD Component", *Proceedings International Conference on Communications*, Helsinki, 2001
- [35] M. Morelli and U. Mengali "Timing Synchronization for the Uplink of an OFDMA System", *Third International Workshop on Multi-Carrier Spread-Spectrum*, (MCSS 2001), Oberpfaffenhofen, September 26-28, 2001
- [36] V. Lottici, A. N. D'Andrea and U. Mengali, "Channel Estimation for Ultra-Wide Bandwidth Time-Hopping Impulse Radio", *Third International Workshop on Multi-Carrier Spread-Spectrum* (MCSS 2001), Oberpfaffenhofen, September 26-28, 2001.
- [37] A. D'Amico, M. Morelli and U. Mengali, "Multipath Channel Estimation for the Uplink of a DS-CDMA System", *Proceedings International Conference on Communications*, New York, 2002
- [38] A. D'Amico, U. Mengali and M. Morelli, "Joint DOA and Channel Parameter Estimation for Code-Division Multiple-Access Systems", *Proceedings International Conference on Communications*, 11-14 June 2003, Anchorage, USA
- [39] C. Carbonelli, A. D'Amico, U. Mengali and M. Morelli, "Channel Acquisition and Tracking for the Uplink of a DS-CDMA System", *Proceedings International Conference on Communications*, 11-14 June 2003, Anchorage, USA.
- [40] M. Morelli, D. Benfatto, D. Lucano, M. Luise and U. Mengali, "Simple Non-Coherent Detectors for CPM Signals Transmitted over Rayleigh Flat-Fading Channels", *IV IEEE Workshop on Signal Processing Advances in Wireless Communications*, June 15-18, 2003, Rome, Italy
- [41] L. Sanguinetti, M. Morelli and U. Mengali, "Space-Time Multi-User Detection for MC-CDMA Systems in the Presence of Channel Estimation Errors", *Proceedings International Workshop on Multi-Carrier Spread-Spectrum* (MC-SS 2003), Oberpfaffenhofen, Munich, pp.269-278, Sept. 2003
- [42] C. Carbonelli, U. Mengali, U. Mitra, "Synchronization and Channel Estimation for UWB Signals", *Proceedings Global Communications Conference (GLOBECOM)*, San Francisco, 1-5 Dec. 2003
- [43] A. D'Amico, U. Mengali and L. Taponecco, "Performance Comparisons between Two Signaling Formats for UWB Applications", *Proceedings International Conference on Communications*, June 2004
- [44] C. Carbonelli, U. Mengali, S. Franz and U. Mitra, "Semi-Blind ML Synchronization for UWB Transmitted Reference Systems", *Thirty-Eighth Asilomar Conference on Signals, Systems and Computers*, Monterey, CA, Nov. 2004
- [45] C. Carbonelli and U. Mengali, "Timing Recovery for UWB Signals", *Proceedings Global Communications Conference (GLOBECOM)*, Dallas, November 2004

- [46] C. Carbonelli and U. Mengali, "Low Complexity Synchronization for Non-coherent UWB Receivers", Vehicular Technology Conference Spring, May 30-June 1 2005, Stockholm
- [47] C. Carbonelli and U. Mengali, "Synchronization of Energy Capture Receivers for UWB Applications", *European Signal Processing Conference (EUSIPCO) 2005*, September 4-8, Antalya, Turkey
- [48] M. Morelli, L. Sanguinetti and U. Mengali, "Parameter Estimation for Interference Cancellation in Power-Controlled MC-CDMA Downlink Transmissions", *Proceedings International Workshop on Multi-Carrier Spread-Spectrum (MCSS)*, Oberpfaffenhofen, Germany, Sept. 2005
- [49] A. A. D'Amico, U. Mengali and L.Taponecco, "Synchronization for DTR Ultra-Wideband Receivers", *Proceedings International Conference on Communications*, Istanbul, 11-15 June 2006
- [50] E. Arias-de-Reyna, A. A. D'Amico and U. Mengali, "UWB Energy Detection Receivers with Partial Channel Knowledge", *Proceedings International Conference on Communications*, Istanbul, 11-15 June 2006
- [51] A.D'Amico, U.Mengali and L.Taponecco, "TOA Estimation with Pulses of Unknown Shape *Proceedings International Conference on Communications*, Glasgow, June 2007
- [52] A. D'Amico and U.Mengali, "Multiuser UWB Communication Systems with Code-Multiplexed Transmitted Reference", *Proceedings International Conference on Communications*, Beijing, 19-23 May 2008.
- [53] E. Arias-de-Reyna and U. Mengali, "Mapping Techniques for UWB Positioning", Proc. ICC 2009, Dresden, Germany, 14-18 June 2009.
- [54] D.Dardari, Y.Karisan, S.Gezici, A.A.D'Amico and U.Mengali, "Performance Limits on Ranging with Cognitive Radio" International Workshop on Synergies in Communications and Localization (SyCoLo 2009), in conjunction with the IEEE ICC 2009, Dresden, Germany, 14-18 June.
- [55] A.D'Amico, U.Mengali and L.Taponecco, "Ranging Algorithm for the IEEE 802.15.4a Standard", International Conference on UWB (ICUWB 2009), Vancouver, Canada, Sept. 9-11 2009.