

FUTURA Publications 2002-2004

Journal Articles

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1. M. Katz, J. Linatti, and S. Glisic, "Adaptive integration time and threshold setting schemes for two-dimensional code acquisition," *Wireless Personal Communication Journal*, vol. 23, no. 1, pp. 171-182, Oct. 2002.
2. Z. Li and M. Latva-aho, "BER performance evaluation for MC-CDMA systems in Nakagami-m fading," *IEE Electronics Letters*, vol. 38, no. 24, pp. 1516-1518, Nov. 2002.
3. Q. Shi and M. Latva-aho, "Calculation of exact error floor for downlink MC-CDMA with maximal ratio combining in correlated Rayleigh fading channels," *IEEE Communications Letters*, vol. 6, no. 5, pp. 196-198, May 2002.
4. Q. Shi and M. Latva-aho, "A simple spreading code allocation scheme for downlink MC-CDMA," *IEE Electronics Letters*, vol. 38, no. 15, pp. 807-809, July 2002.
5. Q. Shi and M. Latva-aho, "Exact bit error rate calculations for synchronous MC-CDMA over a Rayleigh fading channel," *IEEE Communications Letters*, vol. 6, no. 7, pp. 276-278, July 2002.
6. D. Tujkovic, M. Juntti, and M. Latva-aho, "Space-time turbo coded modulation: Design and applications," *EURASIP Journal on Applied Signal Processing, Special Issue on Space-Time Coding and its Applications - Part I*, vol. 2002, no. 3, Mar. 2002.
7. Z. Li and M. Latva-aho, "Performance of space-time coded MC-CDMA in Nakagami fading channels," *IEE Electronics Letters*, vol. 39, no. 2, pp. 222-224, 2003.
8. Z. Li and M. Latva-aho, "Performance of a multicell MC-CDMA system with power control errors in Nakagami fading channels," *IEICE Transactions on Communications*, vol. E86-B, no. 9, pp. 2795-2798, Sep. 2003.
9. T. Matsumoto, T. Abe, and K. Kansanen, "Measurement data -based link-level and system-level simulations for single carrier SC/MMSE MIMO turbo equalization technique," *Kluwer Wireless Personal Communications*, vol. 26, no. 2-3, pp. 227-235.
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11. Q. Shi and M. Latva-aho, "Performance analysis of MC-CDMA in Rayleigh fading channels with correlated envelopes and phases," *IEE Proceedings - Communications*, vol. 150, no. 3, pp. 214-220, June 2003.
12. M. Abdel-Hafez, Z. Li, and M. Latva-aho, "Evaluation of uplink and downlink MC-CDMA receivers in generalized fading channels," *IEICE Transactions on Communications*, vol. E87-B, no. 1, pp. 88-96, Jan. 2004.
13. M. Abdel-Hafez, Z. Li, and M. Latva-aho, "On frequency domain equalization for MC-CDMA in Nakagami fading channels," *European Transactions on Telecommunications*, vol. 15, no. 1, pp. 7-13, Jan. 2004.
14. M. Katz, J. Linatti, and S. Glisic, "Two-dimensional code acquisition in environments with spatially nonuniform distribution of interference: Algorithms and performance," *IEEE Transactions on Wireless Communications*, vol. 3, no. 1, pp. 1-7, Jan. 2004.
15. Z. Li and M. Latva-aho, "Bit error rate analysis for MC-CDMA system in Nakagami-m fading channels," *EURASIP Journal on Applied Signal Processing*, no. 10, pp. 1585-1594, Aug. 2004.
16. S. Tsumura, M. Vehkaperä, Z. Li, D. Tujkovic, M. Juntti, and S. Hara, "Performance evaluation of turbo and space-time turbo coded MC-CDMA downlink in single and multi-cell environments," *IEICE Transactions on Communications*, vol. E87-B, no. 10, pp. 3011-3020, Oct. 2004.
17. N. R. Veselinovic, T. Matsumoto, and M. Juntti, "A PDF estimation-based iterative MIMO signal detection with unknown interference," *IEEE Communications Letters*, vol. 8, no. 7, pp. 422-424, Jul. 2004.
18. N. Veselinovic, T. Matsumoto, and M. Juntti, "Iterative MIMO multiuser detection and equalization for STTrC-coded system with unknown interference," accepted to *EURASIP Journal on Wireless Communications and Networking, Special Issue on Multiuser MIMO Networks*, no. 2, pp. 309-321, Dec. 2004.
19. Y. Wu and T. J. Lim, "Turbo multiuser detection for differentially modulated CDMA," *IEEE Transactions on Wireless Communications*, vol. 3, no. 2, pp. 348-352, Mar. 2004.
20. M. J. Juntti, A. Rabbachin, and K. Pajukoski, "Blind spreading factor detection for DS-SS-CDMA," *IEEE Transactions on Communications*, vol. 52, no. 9, pp. , Sep. 2004.

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21. M. Codreanu, D. Tujkovic, and M. Latva-aho, "Adaptive MIMO-OFDM with low signalling overhead for unbalanced antenna systems," accepted to *IEICE Transactions on Communications*.
22. Q. Shi and M. Latva-aho, "Accurate bit error rate evaluation for synchronous MC-CDMA over Nakagami-m fading channels using moment generating functions," accepted to *IEEE Transactions on Wireless Communications*.
23. Y. Wu, M. Juntti, and T. J. Lim, "Iterative detector for bandwidth-efficient multiple-channel scheme with multiple antennas," accepted to *IEEE Transactions on Communications*.
24. Z. Li and M. Latva-aho, "Non-blind and semi-blind space-time-frequency multiuser detection for space-time block-coded MC-CDMA," accepted to *IEEE Transactions on Wireless Communications*.
25. Z. Li and M. Latva-aho, "Error probability of interleaved MC-CDMA systems with MRC receiver and correlated Nakagami-m fading channels," accepted to *IEEE Transactions on Communications*.
26. H. Miao and M. J. Juntti, "Space-time channel estimation and performance analysis for wireless MIMO-OFDM systems with spatial correlation," accepted to *IEEE Transactions on Vehicular Technology*.
27. S. Aromaa, P. Henttu, and M. Juntti, "Transform selective interference suppression algorithm for spread spectrum communications," accepted to *IEEE Signal Processing Letters*.
28. H. Saarnisaari, P. Henttu, and M. Juntti, "Iterative multidimensional impulse detectors based on the classical diagnostic method," accepted to *IEEE Transactions on Communications*.
29. H. Saarnisaari, P. Henttu, and H. Puska, "Narrowband main beam interference mitigation algorithms for space-time adaptive processing," accepted to *EURASIP Journal on Applied Signal Processing*.
30. N. R. Veselinovic, T. Matsumoto, and C. Schneider, "Reduction of spatial correlation and timing offset dependence of space-time coded turbo equalization and performance evaluation using measurement data," accepted to *IEICE Transactions on Communications*.
31. K. Kansanen, C. Schneider, T. Matsumoto, and R. Thomä, "Multilevel coded QAM with MIMO turbo-equalization in broadband single-carrier signalling," accepted to *IEEE Transactions on Vehicular Technology*.
32. M. Juntti, M. Vehkaperä, J. Leinonen, S. Tsumura, Z. Li, D. Tujkovic, and S. Hara, "MC-CDMA MIMO communications for future cellular systems," accepted to *IEEE Communications Magazine*.
33. M. Särestöniemi, T. Matsumoto, K. Kansanen, and J. Linatti, "Turbo diversity based on SC/MMSE equalization," accepted to *IEEE Transactions on Vehicular Technology*.
34. N. Veselinovic, T. Matsumoto, and M. Juntti, "Iterative PDF estimation-based multiuser diversity detection and channel estimation with unknown interference," accepted to *EURASIP Journal on Applied Signal Processing, Special Issue on Turbo Processing*.

In Review

35. D. Tujkovic, "Performance analysis and constituent code design for space-time turbo coded modulation over fading channels," submitted to *IEEE Transactions on Information Theory*.
36. D. Tujkovic, "Distance spectrum of turbo-TCM: Union bound and code design for AWGN and fading channels," submitted to *IEEE Transactions on Communications*.
37. D. Tujkovic, "Space-time turbo coded modulation for future wireless communication systems," submitted to *Turbo Code Applications: A journey from a paper to realizations*.
38. Y. Wu, K. Ruotsalainen, and M. Juntti, "Optimal unitary space-time constellation design for noncoherent communications with multiple antennas," submitted to *IEEE Transactions on Information Theory*.
39. E. Kunnari and J. Linatti, "Statistical modeling and simulation of Rice fading channel with temporal, spatial and spectral correlation," to be submitted.
40. E. Kunnari and J. Linatti, "Performance analysis of multirate MC-CDMA in Rayleigh fading channels with delay power spectrum exceeding the guard interval," to be submitted.
41. Z. Li and M. Latva-aho, "Space-frequency hybrid multiuser detection for multirate MC-CDMA systems," submitted to *IEEE Transactions on Vehicular Technology*.
42. J. Leinonen and M. Juntti, "Modulation classification in adaptive OFDM systems," submitted to *IEEE Transactions on Vehicular Technology*.

43. H. Puska, H. Saarnisaari, and J. Linatti, "Performance of matched filter code acquisition using DOA estimation and beamforming," submitted to *IEEE Transactions on Wireless Communications*.
44. H. Puska, H. Saarnisaari, J. Linatti, and P. Lilja, "Serial search code acquisition using smart antennas," to be submitted.
45. K. Kansanen and T. Matsumoto, "Frequency-domain MMSE turbo-equalization - Convergence in fading channels," submitted to *IEEE Transactions on Wireless Communications*.
46. K. Kansanen and T. Matsumoto, "Square-root MIMO turbo equalization," submitted to *IEEE Transactions on Fundamentals*.
47. M. Vehkaperä, D. Tujkovic, Z. Li, and M. Juntti, "Receiver design for spatially layered downlink MC-CDMA system," submitted to *IEEE Transactions on Vehicular Technology*.
48. U. Celentano and S. Glisic, "Characterization of the link layer service capacity of adaptive air interfaces with imperfections," submitted to *IEEE Transactions on Wireless Communications*.

Conference Articles

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1. P. Henttu, "Effective interference suppression using short overlapping regions of data and SVD," in *Proc. IEEE International Conference on Communications (ICC)*, New York, USA, Apr. 2002, vol. 1, pp. 182-186.
2. P. Henttu and S. Aromaa, "Consecutive mean excision algorithm," in *Proc. IEEE International Symposium on Spread Spectrum Techniques and Applications (ISSSTA)*, Prague, Czech, Sep. 2002, vol. 2, pp. 450-454.
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7. E. Kunnari, "Space-time coding combined with phase sweeping transmit diversity," in *Proc. IEEE Global Telecommunications Conference (GLOBECOM)*, Taipei, Taiwan, Nov. 2002.
8. Z. Li and M. Latva-aho, "Error probability for MC-CDMA in Nakagami- m fading channels using equal gain combining," in *Proc. IEEE International Conference on Communications (ICC)*, New York, USA, Apr. 2002, pp. 227-231.
9. Z. Li and M. Latva-aho, "Spatial transmit diversity techniques for MC-CDMA systems," in *Proc. IEEE International Symposium on Spread Spectrum Techniques and Applications (ISSSTA)*, Prague, Czech, Sep. 2002, pp. 155-159.
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23. K. Kansanen and T. Matsumoto, "Turbo equalisation of multilevel coded QAM," in *Proc. IEEE Signal Processing Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, Rome, Italy, June 2003.
24. S. Koivu, S. Siltala, and J. Linatti, "Comparison of Iterative Multiple Symbol Differential Detection in Jammed FH Systems," in *Proc. Finnish Wireless Communications Workshop (FWCW)*, Oulu, Finland, Oct. 2003.
25. E. Kunnari, "Modeling and simulation of Rice fading with temporal, spatial and spectral correlation - Part I: Characterization of fading," in *Proc. Finnish Wireless Communications Workshop*, Oulu, Finland, Oct. 2003.
26. E. Kunnari, "Modeling and simulation of Rice fading with temporal, spatial and spectral correlation - Part II: Structure of fading simulator," in *Proc. Finnish Wireless Communications Workshop*, Oulu, Finland, Oct. 2003.
27. J. Leinonen and M. Juntti, "Modulation classification for adaptive radio links," in *Proc. Finnish Signal Processing Symposium*, Tampere, May 2003.
28. L. Leppänen, J. Prokkola, and T. Bräysy, "Performance of ad hoc network under Pareto distributed traffic model," in *Proc. Finnish Wireless Communications Workshop (FWCW)*, Oulu, Finland, Oct. 2003.
29. Z. Li, M. Vehkaperä, D. Tujkovic, M. Latva-aho, and M. Juntti, "Performance evaluation of space-frequency coded MIMO MC-CDMA system," in *Proc. IST Mobile & Wireless Communications Summit*, Aveiro, Portugal, June 2003.
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50. S. Aromaa, P. Henttu, and M. Juntti, "Time-frequency analysis based interference suppression algorithms for CDMA communications," in *Proc. IEEE Vehicular Technology Conference (VTC)*, Milan, Italy, May 2004.
51. M. Codreanu, D. Tujkovic, and M. Latva-aho, "Adaptive MIMO-OFDM with low signalling overhead for unbalanced antenna systems," in *Proc. IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC)*, Barcelona, Spain, Sep. 2004.
52. M. Codreanu, D. Tujkovic, and M. Latva-aho, "Compensation of channel state estimation errors in adaptive MIMO-OFDM systems," in *Proc. IEEE Vehicular Technology Conference (VTC)*, Los Angeles, USA, Sep. 2004.
53. M. Katz, J. Linatti, and S. Glisic, "Recent advances in multi-antenna based code acquisition," in *Proc. IEEE International Symposium on Spread Spectrum Techniques and Applications (ISSSTA)*, Sydney, Australia, Aug. 2004.
54. S. Koivu, S. Siltala, and J. Linatti, "Multiple symbol differential detection in jammed FH systems," in *Proc. IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC)*, Barcelona, Spain, Sep. 2004.
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56. J. Leinonen, M. Vehkaperä, Z. Li, and M. Juntti, "Performance evaluation of multi-antenna coded downlink MC-CDMA in a cellular system," in *Proc. Nordic Radio Symposium (NRS)*, Oulu, Finland, Aug. 2004.
57. Z. Li and M. Latva-aho, "Error probability of interleaved MC-CDMA systems with MRC receiver and correlated Nakagami-m fading channels," *IEEE Communications Theory Workshop (CTW)*, Capri, Italy, May 2004.
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59. Z. Li, M. Latva-aho, and M. Abdel-Hafez "Space-frequency multiuser detection for multirate MC-CDMA systems," in *Proc. IEEE Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, Lisbon, Portugal, July 2004.
60. Z. Li, M. J. Juntti, and M. Latva-aho, "Low complexity semi-blind maximum-likelihood multiuser receiver for MC-CDMA systems," in *Proc. IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC)*, Barcelona, Spain, Sep. 2004.
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62. T. Matsumoto and R. Thoma, "Turbo transceivers in MIMO wireless communications," in *Proc. International Symposium on Antenna and Propagation*, Sendai, Japan, Aug. 2004.
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64. H. Miao and M. J. Juntti, "Spatial signature and channel estimation for wireless MIMO-OFDM systems with spatial correlation," in *Proc. IEEE Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, Lisboa, Portugal, July 2004.
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