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## JOURNAL ARTICLES:

A \* indicates a senior collaborator (not a graduate student, not a post-doctoral associate)

## Accepted

- J57 W. Zhang and U. Mitra, **A Spectrum-Shaping Perspective on Cognitive Radio - Part I: Coexistence with Coded Legacy Transmission**, submitted to the *IEEE Transactions on Communications*, accepted September 2009.
- J56 S. Vedantam, U. Mitra, and A. Sabharwal\*, **Distortion Bounds for the Estimation of Time-Varying Channels in Multihop Sensor Networks**, ACM Transactions on Sensor Networks, accepted July 2009.
- J55 M. Vajapeyam and U. Mitra, **Performance Analysis of Distributed Space-Time Coded Protocols for Wireless Multi-hop Communications**, IEEE Transactions on Wireless Communications, accepted November 2008.

## In Print

- J54 C. Carbonelli, S.-H. Chen, and U. Mitra, **Error Propagation Analysis for Underwater Cooperative Multihop Communications**, Elsevier Journal on Ad Hoc Networks, invited submission, vol. 7, no. 4, June 2009, pp. 759-769.
- J53 X. He, C. Papadopoulos\*, J. Heidemann\*, U. Mitra, and U. Riaz, **Remote Detection of Bottleneck Links Using Spectral and Statistical Methods**, Computer Networks, vol. 53, no. 3, February 2009, pp. 279-298.
- J52 W. Zhang and U. Mitra, **Orthogonal Codes for Robust Low-Cost Communication**, IEEE Transactions on Information Theory, vol. 54, no. 12, December 2008, pp. 5411 - 5426.
- J51 M. Vajapeyam, S. Vedantam, U. Mitra, J. Preisig\*, and M. Stojanovic\*, **Distributed Space-Time Cooperative Schemes for Underwater Acoustic Communications**, IEEE Journal of Oceanic Engineering, vol. 33, no. 4, October 2008, pp. 489 - 501.
- J50 S.-H. Wu, U. Mitra and C.C. Kuo\*, **Iterative Joint Channel Estimation and Multiuser Detection for DS-CDMA in Frequency-Selective Fading Channels**, IEEE Transactions on Signal Processing, vol. 56, no. 7, part 2, July 2008, pp. 3261 - 3277.
- J49 G. Thatte and U. Mitra, **Sensor Selection and Power Allocation for Distributed Estimation in Sensor Networks: Beyond the Star Topology**, IEEE Transactions on Signal Processing, vol. 56, no. 7, part 1, July 2008, pp. 2649 - 2661.
- J48 W. Chen, M. J. Neely\*, and U. Mitra, **Energy-Efficient Transmissions with Individual Packet Delay Constraints**, IEEE Transactions on Information Theory, vol. 54, no. 5, May 2008, pp. 2090-2109.

- J47 W. Chen, M. Neely\* and U. Mitra, **Energy-efficient scheduling with individual packet delay constraints over a fading channel** invited submission from WiOpt'07 for special issue of ACM/Springer Wireless Networks, submitted June 2007, online January 20, 2008. (DOI 10.1007/s11276-007-0093-y)
- J46 C. Mesookho, U. Mitra, and S. Narayanan\*, **On Energy Based Acoustic Source Localization for Sensor Networks**, IEEE Transactions on Signal Processing, vol. 56, no. 1, pp. 365–377, January 2008.
- J45 D. Porrat\* and U. Mitra, **Delay Profile Acquisition for Ultra-Wideband PPM Systems**, IEEE Transactions on Selected Topics in Signal Processing, vol. 1, no. 3, October 2007, pp. 372 - 382.
- J44 C. T. K. Ng, N. Jindal, A. Goldsmith\*, and U. Mitra, **Capacity of Ad Hoc Networks with Transmitter and Receiver Cooperation**, IEEE Transactions on Information Theory, special issue on Relaying and Cooperation in Communication Networks, vol. 53, no. 10, October 2007, pp. 3822 - 3827.
- J43 C. Carbonelli and U. Mitra, **Clustered ML Channel Estimation for Ultra-wideband Signals**, IEEE Transactions on Wireless Communications, vol. 6, no. 7, July 2007, pp. 2412 - 2416.
- J42 S. Franz and U. Mitra, **Quantized UWB Transmitted Reference Systems**, IEEE Transactions on Wireless Communications, vol. 6, no. 7, July 2007 pp. 2540 - 2550.
- J41 A. Sabharwal\* and U. Mitra, **Bounds and Protocols for a Rate-Constrained Relay Channel**, IEEE Transactions on Information Theory, vol. 53, no. 7, July 2007, pp. 2616–2624.
- J40 C. Carbonelli, S. Vedantam, and U. Mitra, **Sparse Channel Estimation with Zero-Tap Estimation**, IEEE Transactions on Wireless Communications, vol. 6, no. 5, May 2007, pp. 1743 - 1763.
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- J37 S. Franz, C. Carbonelli and U. Mitra, **Joint semi-blind channel and timing estimation for generalized UWB transmitted reference systems**, *IEEE Transactions on Wireless Communications*, vol. 6, no. 1, pp. 180 - 191, January 2007.
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- J35 S. Franz and U. Mitra, **Generalized Transmitted Reference UWB Systems**, IEEE Journal on Selected Areas of Communications, special issue on UWB, vol. 24, no. 4, April 2006, pp. 780–786.

- J34 H. Vikalo, B. Hassibi\*, and U. Mitra **Sphere-constrained ML Detection for Frequency Selective Channels**, *IEEE Communications Letters*, vol. 54, no. 7, July 2006, pp. 1179 – 1183.
- J33 M.Akar, A. Paul, M. Safonov\*, and U. Mitra, **Conditions on the Stability of a Class of Second Order Switched Systems**, *IEEE Transactions on Automatic Control*, vol. 51, no. 2, February 2006, pp. 338 – 340.
- J32 J. Geng and U. Mitra, **Non-linear Hierarchical Space-Time Block Codes: Construction and Regular MTCM Design** *IEEE Transactions on Communications*, vol. 54, no. 1, January 2006, pp. 82 – 95.
- J31 S.-H. Wu, U. Mitra and C.-C. J. Kuo\*, **Performance Analysis of Multistage Receivers for CDMA in Frequency Selective Channels**, *IEEE Transactions on Information Theory* vol. 51, no. 10, October 2005, pp. 3493 - 3517.
- J30 A. Paul, M. Akar\*, M. Safonov\*, and U. Mitra, **Adaptive distributed power control in cellular communication networks**, *IEEE Transactions on Neural Networks*, Special issue on Adaptive Learning Systems in Communication Networks, vol. 16, no. 5, September 2005, pp. 1212 - 1218.
- J29 S.-H. Wu, U. Mitra and C.-C. J. Kuo\*, **Blind Adaptive Multistage MMSE-based Receivers for DS-CDMA in Frequency Selective Fading Channels**, *IEEE Transactions on Communications*, vol. 53, no. 2, February, 2005, pp. 264–270.
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- J27 R. Nowak\*, U. Mitra, and R. Willett, **Estimating Inhomogeneous Fields Using Sensor Networks** *IEEE Journal on Selected Areas of Communications*, Special Issue on Fundamental Performance Limits of Wireless Sensor Networks, vol. 22, no. 6, August 2004, pp. 999–1006.
- J26 M. Akar and U. Mitra, **Soft handoff algorithms for CDMA cellular networks**, *IEEE Transactions on Wireless Communications*, vol. 2 no. 6 , November 2003, pp. 1259–1274.
- J25 E. Aktas and U. Mitra, **Blind Equalization for an Application of Unitary Space-Time Modulation in ISI Channels**, *IEEE Transactions on Signal Processing*, special issue on Transmit Diversity Systems, vol. 51, no. 11, November 2003, pp. 2931–2942.
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- J23 W. Chen, U. Mitra, and P. Schniter\*, **On the equivalence of three reduced rank linear estimators with applications to DS-CDMA**, *IEEE Transactions on Information Theory*, vol. 48, no. 9 , September 2002, pp. 2609–2614.
- J22 Z. Pi and U. Mitra, **On Blind Timing Acquisition and Channel Estimation for Wideband Multiuser DS-CDMA Systems**, *Journal of VLSI Signal Processing Systems*, February 2002, vol. 30, Issue 1-3, (invited paper).
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- J20 G. Caire\* and U. Mitra, **Structured multiuser channel estimation for block-synchronous DS/CDMA**, *IEEE Transactions on Communications*, vol. 49, no. 9, September 2001, pp. 1605–1617.
- J19 W. Chen and U. Mitra, **An Improved Blind Adaptive MMSE Receiver for Fast Fading DS-CDMA Channels**, *IEEE Journal on Selected Areas of Communication*, Special Issue on Multiuser Detection Techniques with Application to Wired and Wireless Communication Systems I, vol. 19, no. 8, August 2001, pp. 1531–1543.
- J18 M. Akar and U. Mitra, **Variations on Optimal and Suboptimal Handoff Algorithms for Cellular Systems**, *IEEE Journal on Selected Areas of Communications, Wireless Series*. vol. 18, no. 6, June 2001, pp. 1173–1185.
- J17 C. Escudero, U. Mitra and D. Slock\*, **A Toeplitz Displacement Method for Blind Multipath Estimation for Long Code DS/CDMA Signals**, *IEEE Transactions on Signal Processing*, vol. 49, no. 3, March 2001, pp. 654–665.
- J16 E. Ertin, U. Mitra, and S. Siwamogsatham, **Maximum-Likelihood Based Multipath Channel Estimation for Code-Division Multiple-Access Systems**, *IEEE Transactions on Communications*, vol. 49, no. 2, February, 2001, pp. 290–302.
- J15 W. Chen and U. Mitra, **Training Sequence Optimization: Comparisons, Observations and New Criteria**, *IEEE Transactions on Communications*. vol. 48, no. 12, December 2000, pp. 1987–1991.
- J14 E. Aktas and U. Mitra, **Reduced Complexity Subspace Based Blind Identification for DS/CDMA Systems**, *IEEE Transactions on Communications*. vol. 48, no. 8, August 2000, pp. 1392–1404.
- J13 R. Srinivasan, U. Mitra and R. Moses\*, **Design and Analysis of Receiver Filters for Multiple Chip-Rate DS-CDMA Systems**, *IEEE Journal on Selected Areas of Communication*, issue on Global Spread Spectrum Communications, vol. 17, no.12, December 1999, pp. 2096–2109.
- J12 J. Chen and U. Mitra, **Optimum Near-Far Resistance for Dual-Rate DS/CDMA Signals: Random Signature Sequence Analysis**, *IEEE Transactions on information Theory*, vol. 45, no. 7, November 1999, pp. 2434–2447.
- J11 J. Chen and U. Mitra, **Analysis of Decorrelator-based Receivers for Multi-rate CDMA Communications**, *IEEE Transactions on Vehicular Technology*, vol. 48, no. 6, November 1999, pp.1966–1983.
- J10 U. Mitra, **Comparison of ML-based Detection for Two Multi-rate Access Schemes for CDMA Signals**, *IEEE Transactions on Communications*, vol. 47, no.1, January 1999, pp.64–77.
- J9 C. J. Escudero, L. Castedo\*, and U. Mitra, **A Modified CMA Equalizer for Length Dependent Local Minima Removal**, *IEEE Transactions on Signal Processing*, vol. 47, no.2, February 1999, pp. 540–544.
- J8 L.-C. Chu and U. Mitra, **Analysis of MUSIC-based Delay Estimators for DS/CDMA Systems**, *IEEE Transactions on Communications*, vol. 47, no. 1, January 1999, pp. 133–138.

- J7 L.-C. Chu and U. Mitra, **Performance Analysis of the Improved MMSE Multi-user Receiver for Mismatched Delay Channels**, *IEEE Transactions on Communications*, vol. 46, no. 10, pp. 1369–1380. October 1998.
- J6 U. Mitra and H. V. Poor\*, **An Adaptive Decorrelating Detector for Synchronous CDMA Channels**, *IEEE Transactions on Communications*, Vol. 44, No. 2, February 1996, pp. 257–268.
- J5 U. Mitra and H. V. Poor\*, **Activity Detection in a Multi-user Environment**, *Wireless Personal Communications*, special issue on “Signal Separation and Interference Cancellation for Personal, Indoor and Mobile radio Communications,” 1996, Vol. 3, pp.149–174.
- J4 U. Mitra and H. V. Poor\*, **Adaptive Decorrelating Detectors for CDMA Systems**, *Wireless Personal Communications*, December 1995, Vol. 2, pp. 265–290.
- J3 U. Mitra and H. V. Poor\*, **Adaptive Receiver Algorithms for Near-Far Resistant CDMA**, *IEEE Transactions on Communications*, Vol. 43, No. 2/3/4, Part III, February/March/April 1995, pp. 1713–1724.
- J2 U. Mitra and H. V. Poor\*, **Neural Network Techniques for Adaptive Multi-user Demodulation**, *IEEE Journal on Selected Areas of Communications*, Issue on Intelligent Communications Systems, Vol. 12, No. 9, December 1994, pp. 1460–1470.
- J1 A. Nieminen, Y. Neuvo\*, A. Värri\*, and U. Mitra, **Algorithms for Real Time Trend Detection**, *Signal Processing*, Vol. 18, September, 1989, pp. 1-15.

#### OTHER PUBLICATIONS:

- O4 J. Heidemann, U. Mitra, J. Preisig, M. Stojanovic, M. Zorzi, and L. Cimini, **Guest Editorial, Underwater Wireless Communication Networks**, *IEEE Journal on Selected Areas in Communications*, vol. 26, no. 9, December 2008, pp. 1617–1619.
- O3 A. Chockalingam, U. Mitra, E. Strom, S. Ulukus and L. Milstein, **Guest Editorial Multiuser Detection for Advanced Communication Systems and Networks**, *IEEE Journal on Selected Areas in Communications*, vol. 26, no. 3, April 2008, pp. 417–420.
- O2 U. Mitra, A. Ortega, J. Heidemann and C. Papadopoulos, **Detecting and identifying malware: a new signal processing goal**, *IEEE Signal Processing Magazine* Exploratory DSP column, vol. 23, no. 5, September 2006, pp. 107–111 (solicited, reviewed)
- O1 Y. Hua, U. Mitra, B. Sadler, D. Slock and J. Zeidler, **Signal processing for wireless ad hoc communication networks** [summary of special issue from the guest Editors] *IEEE Signal Processing Magazine*, vol. 23, no. 5, September 2006, p. 17.

#### BOOK CHAPTERS:

- B2 U. Mitra, **Spread Spectrum**, *Encyclopedia of Physical Science and Technology*, 3rd edition, L. B. Milstein (Communications Section Editor), Academic Press, September 2001.
- B1 U. Mitra, **Adaptive Spread Spectrum Receivers**, *Encyclopedia of Telecommunications*, J. G. Proakis (Telecommunications Volume Editor), John Wiley & Sons, 2001/2002.

## REFEREED CONFERENCE PUBLICATIONS:

A \* indicates a senior collaborator (not a graduate student, not a post-doctoral associate)

- C158 M. Levorato, O. Simeone\*, U. Mitra and M. Zorzi\*, **Cooperation and Coordination in Cognitive Networks with Packet Retransmission**, Information Theory Workshop, Taormina, Sicily, October 2009.
- C157 M. Levorato, U. Mitra and M. Zorzi\*, **Cognitive Interference Management in Retransmission-Based Wireless Networks**, Allerton Conference, Monticello IL, October 2009.
- C156 C. Choudhuri and U. Mitra, **On the Capacity of the Symbol-Asynchronous Relay Channel**, Allerton Conference, Monticello IL, October 2009, **invited paper**.
- C155 S. Yerramalli and U. Mitra, **Doppler Compensation in Cooperative Underwater Acoustic Networks using OFDM**, OCEANS, Biloxi MI, October 2009.
- C154 M. Levorato, O. Simeone\* and U. Mitra, **Interference Management via Rate Splitting and HARQ over Time-Varying Fading Channels** Cognitive Radio Networks (CoRoNet) Workshop, ACM Mobicom 2009, Beijing China, September 21, 2009.
- C153 G. Thatte, M. Li, A. Emken, U. Mitra, S. Narayanan\*, M. Annavaram\*, and D. Spruijt-Metz\*, **Energy-Efficient Multi-hypothesis Activity-Detection for Health-Monitoring Applications**, Engineering in Biology and Medicine Conference (EMBC), Minneapolis, MN, September 2009.
- C152 D. N. Liu, M. P. Fitz\* and U. Mitra, **On Channel Estimation in Fast Fading Mobile Coded MIMO OFDM**, ISIT, Seoul, Korea, July 2009.
- C151 C. Choudhuri and U. Mitra, **Capacity of Relay Channels with ISI and Colored Gaussian Noise**, ISIT, Seoul, Korea, July 2009.
- C150 G. Thatte, V. Rozgic, M. Li, S. Ghosh, U. Mitra, S. Narayanan\*, M. Annavaram\*, and D. Spruijt-Metz\*, **Optimal Allocation of Measurements for Multi-hypothesis Activity-Detection**, 5th IEEE International Conference on Distributed Computing in Sensor Systems (DCOSS '09), Marina Del Rey, CA, June 2009 (**winner Best Applications Paper Award**).
- C149 D. Spruijt-Metz\*, M. Li, G. Thatte, G. Sukhatme, M. Annavaram\*, S. Ghosh, V. Rozgic, U. Mitra, N. Medvidovic\*, B. Belcher, S. Narayanan\*, **Differentiating physical activity modalities in youth using heartbeat waveform shape and differences between adjacent waveforms**, 7th International Conference on Diet and Activity Methods (ICDAM 7), Washington DC, June 2009.
- C148 M. Levorato, U. Mitra, and M. Zorzi\*, **On Optimal Control of Wireless Networks with Multiuser Detection, Hybrid ARQ and Distortion Constraints**, Infocom09, Rio de Janeiro, Brazil, April 2009.
- C147 G. Thatte, V. Rozgic, M. Li, S. Ghosh, U. Mitra, S. Narayanan\*, M. Annavaram\*, and D. Spruijt-Metz\*, **Optimal Time-Resource Allocation for Activity-Detection via Multimodal Sensing**, Bodynets Workshop, Los Angeles, CA, April 2009.
- C146 F. Arrichiello, D. N. Liu, S. Yerramalli, A. Pereira, J. Das, U. Mitra and G. Sukhatme\*, **Effects of Underwater Communication Constraints on the Control of Marine Robot Teams**, in Proc. IEEE International Conference on Robot Communication and Coordination, Odense, Denmark March 2009.

- C 145 S. Vedantam, U. Mitra, and G. Sukhatme\*, **The Distortion, Delay and Energy Tradeoffs for Sensor Networks with Mobile Relays**, in Proc. IEEE International Conference on Robot Communication and Coordination, Odense, Denmark March 2009.
- C144 W. Zhang and U. Mitra, **Exploiting Spectral Shaping for Cognitive Radio**, Information Theory and Applications Workshop, San Diego, CA, February 2009 (**invited paper**).
- C143 M. Annavaram\*, N. Medvidovic\*, U. Mitra, S. Narayanan\*, G. Sukhatme\*, Z. Meng, S. Qiu, R. Kumar, G. Thatte, D. Spruijt-Metz\*, **Multimodal Sensing for Pediatric Obesity Applications**, UrbanSense Workshop, Sensys, Raleigh, NC, November 2008.
- C142 W. Zhang and U. Mitra, **A Spectrum-Shaping Perspective on Cognitive Radio**, 3rd IEEE International Symposium on Dynamic Spectrum Access Networks (DySPAN), Chicago, IL, October 2008.
- C141 S. Vedantam, W. Zhang, and U. Mitra, **Joint Communication and Channel Estimation: The Two Hop Case**, 46th Annual Allerton Conference on Communication, Control, and Computing, Monticello, IL, September 2008.
- C140 N. Richard and U. Mitra, **Structured Channel Estimation Methods for Cooperative Underwater Communication**, WUWNET 2008, San Francisco, CA September 2008.
- C139 W. Zhang, M. Stojanovic\*, and U. Mitra, **Analysis of A Simple Multihop Underwater Acoustic Network**, WUWNET 2008, San Francisco, CA September 2008.
- C138 A. Barbieri, G. Caire\* and U. Mitra **Transmit/Receive Filter Optimization for Doubly-Selective Underwater Acoustic Channels**, MTS/IEEE OCEANS, September 2008, Quebec, Canada.
- C137 S. Yerramali and U. Mitra, **On Optimal Resampling for OFDM Signaling in Doubly Selective Underwater Acoustic Channels**, MTS/IEEE OCEANS, September 2008, Quebec, Canada.
- C136 W. Zhang and U. Mitra, **A Spectrum-Shaping Perspective on Cognitive Radio – Uncoded Primary Transmission Case**, IEEE International Symposium on Information Theory (ISIT), Toronto, Canada, July 2008.
- C135 W. Zhang, S. Vedantam, and U. Mitra, **A Constrained Channel Coding Approach to Joint Communication and Channel Estimation**, IEEE International Symposium on Information Theory (ISIT), Toronto, Canada, July 2008.
- C134 G. Thatte, U. Mitra and J. Heidemann\*, **Detection of low-rate attacks in computer networks**, Proceedings of the 11th IEEE Global Internet Symposium, (with INFOCOM), Phoenix, AZ, April 2008, pp 1-6.
- C133 W. Zhang and U. Mitra, **Channel-Adaptive Frequency-Domain Relay Processing in Multicarrier Multihop Transmission**, Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), Las Vegas, NV, March-April 2008.
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- C131 N. Richard and U. Mitra, **Sparse Channel Estimation for Cooperative Underwater Communications: A Structured Multichannel Approach**, Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), Las Vegas, NV, March-April 2008 (**invited paper**).
- C130 W. Zhang and U. Mitra **Orthogonal codes for robust low-cost communication** (invited paper) Information Theory and Applications Workshop, UC San Diego, CA, January 2008.
- C129 W. Zhang and U. Mitra **Transmitted-Reference UWB: A Digital Approach** (invited paper), Asilomar Conference, Pacific Grove, CA, November 2007.
- C128 W. Zhang and U. Mitra **On Outage Behavior of Wideband Slow-Fading Channels** Allerton Conference, Monticello, IL, October 2007.
- C127 C. Carbonelli and U. Mitra, **A Simple Sparse Channel Estimator for Underwater Acoustic Channels**, OCEANS'07, Vancouver, Canada, October 2007.
- C126 W. Chen and U. Mitra, **Packet Scheduling for Multihopped Underwater Acoustic Communication Networks**, OCEANS'07, Vancouver, Canada, October 2007.
- C125 W. Zhang and U. Mitra **A Delay-Reliability Analysis for Multihop Underwater Acoustic Communication**, WUWNET, Montreal, Canada, September 2007.
- C124 S. Vedantam, W. Zhang, U. Mitra, and A. Sabharwal, **Joint Channel Estimation and Data Transmission: Achievable Rates**, Information Theory Workshop, Lake Tahoe, CA, September 2007.
- C123 W. Zhang and U. Mitra **Multihopping Strategies: An Error-Exponent Comparison**, ISIT'07, Nice France, June 2007.
- C122 W. Chen, M. Neely and U. Mitra **Delay-Constrained Energy-Efficient Scheduling over a Multihop Link**, ISIT'07, Nice France, June 2007.
- C121 W. Chen, M. J. Neely, and U. Mitra, **Energy Efficient Scheduling with Individual Packet Delay Constraints: Offline and Online Results**, Proc. of IEEE INFOCOM, May 2007, Anchorage, AK.
- C120 W. Chen, U. Mitra, and M. J. Neely, **Energy-Efficient Scheduling with Individual Delay Constraints over a Fading Channel**, 5th Intl. Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt), April 2007, Cyprus.
- C119 W. Chen, M. Neely and U. Mitra **Energy Efficient Packet Scheduling for Fading Channels and Delay Constraints**, Information Theory and Applications Workshop, San Diego, CA, January 2007 (**invited paper**).
- C118 M. Vajapeyam and U. Mitra **Performance of Distributed Space-Time Cooperative Schemes for Underwater Acoustic Communications**, Globecom 2006, San Francisco, November 2006.
- C117 S. Franz, U. Mitra, and G. Caire, **Capacity Bounds for Training-Based UWB Systems**, Globecom 2006, San Francisco, November 2006.
- C116 G. Thatte and U. Mitra, **Power Allocation in Linear and Tree WSN Topologies**, *39th Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, October 2006 (**invited paper**).

- C115 M. Nematian, U. Mitra, and R. A. Scholtz\*, **Optimum Integration Time for UWB Transmitted Reference and Energy Detector Receivers**, Milcom06, October 2006, Washington DC, (invited paper).
- C114 S. Franz and U. Mitra, **UWB Receiver Design for Low Resolution Quantizers**, 14th European Signal Processing Conference, Florence, Italy, September 2006 (invited paper).
- C113 W. Chen, U. Mitra, M. J. Neely\*, **Packet Dropping Algorithms for Energy Savings**, IEEE ISIT, Seattle, WA, June 2006.
- C112 S. Vedantam, U. Mitra, and A. Sabharwal\*, **Shared Sensing and Communications in Sensor Networks: The Multihop Case**, IEEE ISIT, Seattle, WA, June 2006.
- C111 D. Porrat\* and U. Mitra, **Timing Acquisition of Wideband PPM Systems over Multipath**, IEEE ISIT, Seattle, WA, June 2006.
- C110 S. Vedantam, U. Mitra, and A. Sabharawal\*, **Sensing the Channel: Sensor Networks with Shared Sensing and Communications**, IPSN 2006, Nashville, TN, April 2006.
- C109 W. Chen and U. Mitra, **Energy Efficient Scheduling with Individual Packet Delay Constraints**, IEEE INFOCOM, Barcelona, Spain, April 2006.
- C108 D. Porrat\* and U. Mitra, **Synchronization of PPM over Wideband Multipath Channels**, 2006 International Zurich Seminar on Communications, Zurich, Switzerland, February 2006, pp. 166–169, (invited paper).
- C107 S. Vedantam, U. Mitra, and A. Sabharawal\*, **Shared Sensing and Communications in Sensor Networks : The Multihop Case**, Information Theory and Applications – Inaugural Workshop, San Diego, CA, February 2006 (invited paper).
- C106 M. Vajapeyam and U. Mitra **Cooperative Strategies for Multihop Communications**, WICAT Workshop, Brooklyn, NY, October 2005.
- C105 S. Franz and U. Mitra, **Quantized UWB Transmitted Reference Systems**, *38th Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, November 2005.
- C104 C. Carbonelli and U. Mitra, **Clustered Channel Estimation for Temporal UWB Returns**, *IEEE International Conference on Ultra-Wideband*, Zurich, Switzerland, September 2005.
- C103 A. Sabharwal\* and U. Mitra, **Rate-constrained Relaying: Achievable Rates and Protocol Comparisons**, *IEEE International Symposium on Information Theory*, Adelaide, Australia, September 2005.
- C102 D. Porrat\* and U. Mitra, **On Synchronization of Wideband Impulsive Systems in Multipath**, *IEEE International Symposium on Information Theory*, Adelaide, Australia, September 2005.
- C101 S.-H. Chen, U. Mitra, and B. Krishnamachari\*, **Cooperative Communication And Routing Over Fading Channels In Wireless Sensor Networks**, *IEEE International Conference on Wireless Networks, Communications, and Mobile Computing (WirelessCom)*, Maui, Hawaii, June 2005. (invited paper).
- C100 C. Mesookhoo, U. Mitra and S. Narayanan\* **An Analysis of Range Difference Based Target Localization in Uniformly Distributed Sensor Field**, *Information Processing in Sensor Networks (IPSN)*, Works-in-Progress Poster Session, Los Angeles, CA, April 2005.

- C99 C. Carbonelli, S. Franz, U. Mengali and U. Mitra, **Semi-blind ML synchronization for UWB transmitted reference systems**, *38th Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, November 2004, vol.2, ppl 1491–1495.
- C98 J. Geng and U. Mitra, **Exploiting Diversity in Ad Hoc Sensor Networks**, *38th Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, November 2004 (**invited paper**)
- C97 S.-H. Wu, U. Mitra, and C. C. Kuo\*, **Iterative MAP Channel Estimation and Multiuser Detection for DS-CDMA in Frequency-Selective Fading Channels**, *38th Asilomar Conference on Signals, Systems and Computers*, Pacific Grove, CA, November 2004 (**invited paper**)
- C96 J. Geng and U. Mitra, **Exploiting the large dimensions of space-time systems** IEEE Vehicular Technology Conference, Los Angeles CA, September 2004 (**invited paper**).
- C95 A. Paul, M. Akar\*, U. Mitra, and M. G. Safonov\*, **A Switched System Model for Stability Analysis of Distributed Power Control Algorithms for Cellular Communications**, American Control Conference, Boston, MA, invited paper July 2004.
- C94 A. Paul, M. Akar\*, M. G. Safonov\* and U. Mitra **Necessary and Sufficient Conditions for the Stability of a Class of Second Order Switched Systems**, American Control Conference, Boston, MA, July 2004.
- C93 A. Paul, M. Akar\*, M. G. Safonov\* and U. Mitra **Power control in cellular communication networks using multiple controllers and switching**, American Control Conference, Boston, MA, July 2004.
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