



## Teresa Meng

Reid Weaver Dennis Professor in Electrical Engineering and Professor of Computer Science, Emerita

### Bio

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#### BIO

Teresa H. Meng is the Reid Weaver Dennis Professor of Electrical Engineering, Emerita, at Stanford University. Her research activities in the first 10 years focused on low-power circuit and system design, video signal processing, and wireless communications. In 1998, Prof. Meng took leave from Stanford and founded Atheros Communications, Inc., which developed semiconductor system solutions for wireless network communications products. After returning to Stanford in 2000 to continue her teaching and research, Prof. Meng turned her research interest to applying signal processing and IC design to bio-medical engineering. She collaborated with Prof. Krishna Shenoy on neural signal processing and neural prosthetic systems. She also directed a research group exploring wireless power transfer and implantable bio-medical devices. Prof. Meng retired from Stanford in 2013.

#### ACADEMIC APPOINTMENTS

- Emeritus Faculty, Acad Council, Electrical Engineering
- Member, Bio-X

#### HONORS AND AWARDS

- Alexander Graham Bell Medal, IEEE (2019)
- Outstanding Contribution Award, ACM SIGMOBILE (2018)
- Academician, Academia Sinica of Taiwan (2010)
- Distinguished Alumnus Award, UC Berkeley, EECS Department (2010)
- Distinguished Alumnus Award, National Taiwan University (2010)
- Donald O. Peterson Solid-State Circuits Award, IEEE (2009)
- Life-Time Achievement Award, DEMO (2009)
- Member, National Academy of Engineering (2007)
- Distinguished Lecturer Award, IEEE Signal Processing Society (2004)
- Bosch Faculty Scholar Award, Stanford University (2003)
- 20/20 Vision Award, CIO Magazine (2002)
- Innovator of the Year, MIT Sloan Business School (2002)
- Top 10 Entrepreneurs of the Year, Red Herring (2001)
- Fellow, IEEE (1998)
- Presidential Young Investigator Award, National Science Foundation (1989)
- Young Investigator Award, Office of Naval Research (1989)

- Best Paper Award, IEEE Signal Processing Society (1988)
- Ely Jury Award, UC Berkeley (1988)

## BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Director, Ambarella, Inc. (2018 - present)
- Director, Alliance Cultural Foundation International (2017 - present)
- Advisor, Atmosic Technologies (2016 - present)
- Academician, Academia Sinica, Taiwan (2010 - present)
- Member, National Academy of Engineering (2007 - present)
- Trustee, Computer Science Museum (2006 - 2008)
- Director of CS and Telecommunication Board, National Academies (2003 - 2009)
- Founder and Director, Atheros Communications Inc (1999 - 2011)
- Fellow, IEEE (1998 - present)

## PROFESSIONAL EDUCATION

- Ph.D., UC Berkeley , EECS (1988)
- M.S., UC Berkeley , EECS (1985)
- B.S., National Taiwan University , Electrical Engineering (1983)

## Publications

### PUBLICATIONS

- **A freely-moving monkey treadmill model** *JOURNAL OF NEURAL ENGINEERING*  
Foster, J. D., Nuyujukian, P., Freifeld, O., Gao, H., Walker, R., Ryu, S. I., Meng, T. H., Murmann, B., Black, M. J., Shenoy, K. V.  
2014; 11 (4)
- **A mm-Sized Wirelessly Powered and Remotely Controlled Locomotive Implant** *IEEE TRANSACTIONS ON BIOMEDICAL CIRCUITS AND SYSTEMS*  
Pivonka, D., Yakovlev, A., Poon, A. S., Meng, T.  
2012; 6 (6): 523-532
- **CytoSPADE: high-performance analysis and visualization of high-dimensional cytometry data** *BIOINFORMATICS*  
Linderman, M. D., Bjornson, Z., Simonds, E. F., Qiu, P., Bruggner, R. V., Sheode, K., Meng, T. H., Plevritis, S. K., Nolan, G. P.  
2012; 28 (18): 2400-2401
- **HermesE: A 96-Channel Full Data Rate Direct Neural Interface in 0.13  $\mu\text{m}$  CMOS** *IEEE JOURNAL OF SOLID-STATE CIRCUITS*  
Gao, H., Walker, R. M., Nuyujukian, P., Makinwa, K. A., Shenoy, K. V., Murmann, B., Meng, T. H.  
2012; 47 (4): 1043-1055
- **Adaptive Resolution ADC Array for an Implantable Neural Sensor** *IEEE TRANSACTIONS ON BIOMEDICAL CIRCUITS AND SYSTEMS*  
O'Driscoll, S., Shenoy, K. V., Meng, T. H.  
2011; 5 (2): 120-130
- **HermesD: A High-Rate Long-Range Wireless Transmission System for Simultaneous Multichannel Neural Recording Applications** *IEEE TRANSACTIONS ON BIOMEDICAL CIRCUITS AND SYSTEMS*  
Miranda, H., Gilja, V., Chestek, C. A., Shenoy, K. V., Meng, T. H.  
2010; 4 (3): 181-191
- **Optimal Frequency for Wireless Power Transmission Into Dispersive Tissue** *IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION*  
Poon, A. S., O'Driscoll, S., Meng, T. H.  
2010; 58 (5): 1739-1750

- **Translating Electromagnetic Torque into Controlled Motion for use in Medical Implants** *32nd Annual International Conference of the IEEE Engineering-in-Medicine-and-Biology-Society (EMBC 10)*  
Pivonka, D., Meng, T., Poon, A.  
IEEE.2010: 6433–6436
- **Adaptive Signal Acquisition and Wireless Power Transfer for an Implantable Prosthesis Processor** *International Symposium on Circuits and Systems Nano-Bio Circuit Fabrics and Systems (ISCAS 2010)*  
O'Driscoll, S., Meng, T. H.  
IEEE.2010: 3589–3592
- **Towards Program Optimization through Automated Analysis of Numerical Precision** *8th International Symposium on Code Generation and Optimization*  
Linderman, M. D., Ho, M., Dill, D. L., Meng, T. H., Nolan, G. P.  
IEEE COMPUTER SOC.2010: 230–37
- **A programmable pulse UWB transmitter with 34% energy efficiency for multichannel neuro-recording systems** *32nd Annual Custom Integrated Circuits Conference CICC*  
Miranda, H., Meng, T. H.  
IEEE.2010
- **A high-rate long-range wireless transmission system for multichannel neural recording applications** *IEEE International Symposium on Circuits and Systems (ISCAS 2009)*  
Miranda, H., Gilja, V., Chestek, C., Shenoy, K. V., Meng, T. H.  
IEEE.2009: 1265–1268
- **Locomotive Micro-Implant with Active Electromagnetic Propulsion** *Annual International Conference of the IEEE-Engineering-in-Medicine-and-Biology-Society*  
Pivonka, D., Poon, A. S., Meng, T. H.  
IEEE.2009: 6404–6407
- **Adaptive Resolution ADC Array for Neural Implant** *Annual International Conference of the IEEE-Engineering-in-Medicine-and-Biology-Society*  
O'Driscoll, S., Meng, T. H.  
IEEE.2009: 1053–1056
- **Detecting neural-state transitions using hidden Markov models for motor cortical prostheses** *JOURNAL OF NEUROPHYSIOLOGY*  
Kemere, C., Santhanam, G., Yu, B. M., Afshar, A., Ryu, S. I., Meng, T. H., Shenoy, K. V.  
2008; 100 (4): 2441-2452
- **Merge: A programming model for heterogeneous multi-core systems** *13th International Conference on Architectural Support for Programming Languages and Operating Systems*  
Linderman, M. D., Collins, J. D., Wang, H., Meng, T. H.  
ASSOC COMPUTING MACHINERY.2008: 287–96
- **Signal processing challenges for neural prostheses** *IEEE SIGNAL PROCESSING MAGAZINE*  
Linderman, M. D., Santhanam, G., Kemere, C. T., Gilja, V., O'Driscoll, S., Yu, B. M., Afshar, A., Ryu, S. I., Shenoy, K. V., Meng, T. H.  
2008; 25 (1): 18-28
- **Reconfigurable Computing for Learning Bayesian Networks** *16th ACM/SIGDA International Symposium on Field-Programmable Gate Arrays*  
Asadi, N. B., Meng, T. H., Wong, W. H.  
ASSOC COMPUTING MACHINERY.2008: 203–211
- **HermesB: A continuous neural recording system for freely behaving primates** *IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING*  
Santhanam, G., Linderman, M. D., Gija, V., Afshar, A., Ryu, S. I., Meng, T. H., Shenoy, K. V.  
2007; 54 (11): 2037-2050
- **Mixture of trajectory models for neural decoding of goal-directed movements** *JOURNAL OF NEUROPHYSIOLOGY*  
Yu, B. M., Kemere, C., Santhanam, G., Afshar, A., Ryu, S. I., Meng, T. H., Sahani, M., Shenoy, K. V.  
2007; 97 (5): 3763-3780
- **Core capacity region of energy-limited, delay-tolerant wireless networks** *IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS*  
Rodoplu, V., Meng, T. H.

2007; 6 (5): 1844-1853

- **Bits-per-Joule capacity of energy-limited wireless networks** *IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS*  
Rodoplu, V., Meng, T. H.  
2007; 6 (3): 857-865
- **Optimal operating frequency in wireless power transmission for implantable devices** *29th Annual International Conference of the IEEE-Engineering-in-Medicine-and-Biology-Society*  
Poon, A. S., O'Driscoll, S., Meng, T. H.  
IEEE.2007: 5674-5679
- **Computing the optimal amount of constellation distortion in OFDM systems** *IEEE International Conference on Communications (ICC 2007)*  
Aggarwal, A., Stauffer, E. R., Meng, T. H.  
IEEE.2007: 2918-2923
- **Minimizing the peak-to-average power ratio of OFDM signals using convex optimization** *IEEE TRANSACTIONS ON SIGNAL PROCESSING*  
Aggarwal, A., Meng, T. H.  
2006; 54 (8): 3099-3110
- **Neural recording stability of chronic electrode arrays in freely behaving primates.** *Conference proceedings : ... Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Conference*  
Linderman, M. D., Gilja, V., Santhanam, G., Afshar, A., Ryu, S., Meng, T. H., Shenoy, K. V.  
2006; 1: 4387-4391
- **An autonomous, broadband, multi-channel neural recording system for freely behaving primates** *28th Annual International Conference of the IEEE-Engineering-in-Medicine-and-Biology-Society*  
Linderman, M. D., Gilja, V., Santhanam, G., Afshar, A., Ryu, S., Meng, T. H., Shenoy, K. V.  
IEEE.2006: 3780-3783
- **Multiday electrophysiological recordings from freely behaving primates.** *Conference proceedings : ... Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Conference*  
Gilja, V., Linderman, M. D., Santhanam, G., Afshar, A., Ryu, S., Meng, T. H., Shenoy, K. V.  
2006; 1: 5643-5646
- **A low power merge cell processor for real-time spike sorting in implantable neural prostheses** *IEEE International Symposium on Circuits and Systems*  
Linderman, M. D., Meng, T. H.  
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- **Neural rklcording stability of chronic electrode arrays in freely behaving primates** *28th Annual International Conference of the IEEE-Engineering-in-Medicine-and-Biology-Society*  
Linderman, M. D., Gilja, V., Santhanam, G., Afshar, A., Ryu, S., Meng, T. H., Shenoy, K. V.  
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- **An autonomous, broadband, multi-channel neural recording system for freely behaving primates.** *Conference proceedings : ... Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Conference*  
Linderman, M. D., Gilja, V., Santhanam, G., Afshar, A., Ryu, S., Meng, T. H., Shenoy, K. V.  
2006; 1: 1212-1215
- **Increasing the performance of cortically-controlled prostheses.** *Conference proceedings : ... Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Conference*  
Shenoy, K. V., Santhanam, G., Ryu, S. I., Afshar, A., Yu, B. M., Gilja, V., Linderman, M. D., Kalmar, R. S., Cunningham, J. P., Kemere, C. T., Batista, A. P., Churchland, M. M., Meng, et al  
2006: 6652-6656
- **Optimal Peak-to-Average Power Ratio Reduction in MIMO-OFDM Systems** *IEEE International Conference on Communications (ICC 2006)*  
Aggarwal, A., Stauffer, E. R., Meng, T. H.  
IEEE.2006: 3094-3099
- **An 802.11g WLAN SoC** *IEEE International Solid-State Circuits Conference (ISSCC 2005)*  
Mehta, S. S., Weber, D., Terrovitis, M., Onodera, K., Mack, M. P., Kaczynski, B. J., Samavati, H., Jen, S. H., Si, W. W., Lee, M., Singh, K., Mendis, S., Husted, et al

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- **Power feasibility of implantable digital spike sorting circuits for neural prosthetic systems** *IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING*  
Zumsteg, Z. S., Kemere, C., O'Driscoll, S., Santhanam, G., Ahmed, R. E., Shenoy, K. V., Meng, T. H.  
2005; 13 (3): 272-279
- **Iterative power control for imperfect successive interference cancellation** *IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS*  
Agrawal, A., Andrews, J. G., Cioffi, J. M., Meng, T.  
2005; 4 (3): 878-884
- **A convex interior-point method for optimal OFDM PAR reduction** *IEEE International Conference on Communications (ICC 2005)*  
Aggarwal, A., Meng, T. H.  
IEEE.2005: 1985–1990
- **Optimal estimation of feed-forward-controlled linear systems** *30th IEEE International Conference on Acoustics, Speech, and Signal Processing*  
Kemere, C., Meng, T.  
IEEE.2005: 353–356
- **Adaptive ADC design for neuro-prosthetic interfaces: Base ADC cell** *European Conference on Circuit Theory and Design*  
O'Driscoll, S., Meng, T. H.  
IEEE.2005: 301–304
- **Model-based neural decoding of reaching movements: A maximum likelihood approach** *IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING*  
Kemere, C., Shenoy, K. V., Meng, T. H.  
2004; 51 (6): 925-932
- **Performance of multicarrier CDMA with successive interference cancellation in a multipath fading channel** *IEEE 7th Symposium on Spread Spectrum Techniques and Applications*  
Andrews, J. G., Meng, T. H.  
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2004: 811–22
- **Model-based decoding of reaching movements for prosthetic systems.** *Conference proceedings : ... Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Conference*  
Kemere, C., Santhanam, G., Yu, B. M., Ryu, S., Meng, T., Shenoy, K. V.  
2004; 6: 4524-4528
- **Power feasibility of implantable digital spike-sorting circuits for neural prosthetic systems** *26th Annual International Conference of the IEEE-Engineering-in-Medicine-and-Biology-Society*  
Zumsteg, Z. S., Ahmed, R. E., Santhanam, G., Shenoy, K. V., Meng, T. H.  
IEEE.2004: 4237–4240
- **Model-based decoding of reaching movements for prosthetic systems** *26th Annual International Conference of the IEEE-Engineering-in-Medicine-and-Biology-Society*  
Kemere, C., Santhanam, G., Yu, B. M., Ryu, S., Meng, T., Shenoy, K. V.  
IEEE.2004: 4524–4528
- **Power feasibility of implantable digital spike-sorting circuits for neural prosthetic systems.** *Conference proceedings : ... Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Conference*  
Zumsteg, Z. S., Ahmed, R. E., Santhanam, G., Shenoy, K. V., Meng, T. H.  
2004; 6: 4237-4240
- **Globally optimal tradeoff curves for OFDM par reduction** *IEEE Workshop on Signal Processing Systems Design and Implementation*  
Aggarwal, A., Meng, T. H.  
IEEE.2004: 12–17
- **Design and implementation of an All-CMOS 802.11a wireless LAN chipset** *IEEE COMMUNICATIONS MAGAZINE*  
Meng, T. H., McFarland, B., Su, D., Thomson, J.  
2003; 41 (8): 160-168
- **Optimum power control for successive interference cancellation with imperfect channel estimation (vol 2, pg 375, 2003)** *IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS*

- Andrews, J. G., Meng, T. H.  
2003; 2 (3): 601-601
- **Optimum power control for successive interference cancellation with imperfect channel estimation** *IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS*  
Andrews, J. G., Meng, T. H.  
2003; 2 (2): 375-383
  - **Robust neural decoding of reaching movements for prosthetic systems** *25th Annual International Conference of the IEEE-Engineering-in-Medicine-and-Biology-Society*  
Kemere, C., Sahani, M., Meng, T.  
IEEE.2003: 2079–2082
  - **Minimizing the peak-to-average power ratio of OFDM signals via convex optimization** *IEEE Global Telecommunications Conference (GLOBECOM 03)*  
Aggarwal, A., Meng, T. H.  
IEEE.2003: 2385–2389
  - **Successive interference cancellation in a low-earth orbit satellite system** *INTERNATIONAL JOURNAL OF SATELLITE COMMUNICATIONS AND NETWORKING*  
Andrews, J. G., Meng, T. H.  
2003; 21 (1): 65-77
  - **Capacity and performance gains through temporal and spatial oversampling** *57th IEEE Vehicular Technology Conference*  
Koymen, O. H., Meng, T. H.  
IEEE.2003: 2653–2657
  - **Growth of wireless ad hoc networks** *IEEE Global Telecommunications Conference (GLOBECOM 03)*  
Rodoplu, V., Meng, T. H.  
IEEE.2003: 2819–2823
  - **Vertex data compression through vector quantization** *IEEE TRANSACTIONS ON VISUALIZATION AND COMPUTER GRAPHICS*  
Chou, P. H., Meng, T. H.  
2002; 8 (4): 373-382
  - **Performance of multicarrier CDMA with successive interference cancellation with estimation error in a multipath fading channel** *IEEE 7th Symposium on Spread Spectrum Techniques and Applications*  
Andrews, J. G., Meng, T. H.  
IEEE.2002: 150–154
  - **Power control for successive interference cancellation with imperfect cancellation** *IEEE International Conference on Communications*  
Agrawal, A., Andrews, J., Cioffi, J., Meng, T.  
IEEE.2002: 356–360
  - **A simple iterative power control scheme for successive interference cancellation** *IEEE 7th Symposium on Spread Spectrum Techniques and Applications*  
Andrews, J., Agrawal, A., Meng, T., Cioffi, J.  
IEEE.2002: 761–765
  - **Core capacity of wireless ad hoc networks** *5th International Symposium on Wireless Personal Multimedia Communications*  
Rodoplu, V., Meng, T. H.  
IEEE.2002: 247–251
  - **Decoding of plan and peri-movement neural signals in prosthetic systems** *IEEE Workshop on Signal Processing Systems (SIPS 02)*  
Kemere, C. T., Santhanam, G., Yu, B. M., Shenoy, K. V., Meng, T. H.  
IEEE.2002: 276–283
  - **Computation of core capacity of wireless ad hoc networks** *36th Asilomar Conference on Signals, Systems and Computers*  
Rodoplu, V., Meng, T. H.  
IEEE.2002: 1543–1547
  - **Core capacity region of energy-limited wireless ad hoc networks** *IEEE Information Theory Workshop*  
Rodoplu, V., Meng, T. H.

IEEE.2002: 207–207

- **Temporal and spatial oversampling in direct sequence CDMA systems: A linear algebra approach** *IEEE Information Theory Workshop*  
Koymen, O. H., Meng, T. H.  
IEEE.2002: 206–206
- **Bits-per-Joule capacity of energy-limited wireless ad hoc networks** *IEEE Global Telecommunications Conference (GLOBECOM 02)*  
Rodoplu, V., Meng, T. H.  
IEEE.2002: 16–20
- **Minimizing power consumption in direct sequence spread spectrum correlators by resampling IF samples - Part I: Performance analysis** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS II-EXPRESS BRIEFS*  
Namgoong, W., Meng, T. H.  
2001; 48 (5): 450-459
- **Minimizing power consumption in direct sequence spread spectrum correlators by resampling IF samples - Part II: Implementation issues** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS II-EXPRESS BRIEFS*  
Namgoong, W., Meng, T. H.  
2001; 48 (5): 460-470
- **Direct-conversion RF receiver design** *IEEE TRANSACTIONS ON COMMUNICATIONS*  
Namgoong, W., Meng, T. H.  
2001; 49 (3): 518-529
- **Transmit power and other-cell interference reduction via successive interference cancellation with imperfect channel estimation** *IEEE International Conference on Communications*  
Andrews, J. G., Meng, T. H.  
IEEE.2001: 1940–1944
- **Wireless LAN revolution: from silicon to systems** *IEEE Radio Frequency Integrated Circuits (RFIC) Symposium*  
Meng, T. H., McFarland, B.  
IEEE.2001: 3–6
- **Multiple access interference cancellation in fading multipath channels: Progress and limitations** *53rd IEEE Vehicular Technology Conference (VTC)*  
Andrews, J. G., Meng, T. K.  
IEEE.2001: 1804–1808
- **Multiple access interference cancellation in fading multipath channels: Progress and limitations** *53rd IEEE Vehicular Technology Conference (VTC)*  
Andrews, J. G., Meng, T. H.  
IEEE.2001: 614–618
- **Oversampling in a forced-asynchronous CDMA system** *IEEE International Conference on Communications*  
Koymen, O. H., Meng, T. H.  
IEEE.2001: 1890–1894
- **Throughput characteristics of a minimum energy wireless network** *IEEE International Conference on Communications*  
Koymen, O. H., Rodoplu, V., Meng, T. H.  
IEEE.2001: 2568–2572
- **Fast vertex transformation for 3D rendering through predictive vector quantization** *Data Compression Conference (DCC 2001)*  
Chou, P. H., Meng, T. H.  
IEEE COMPUTER SOC.2001: 491–491
- **Extending spectral modeling synthesis with transient modeling synthesis** *COMPUTER MUSIC JOURNAL*  
Verma, T. S., Meng, T. H.  
2000; 24 (2): 47-59
- **An all-digital low-power IF GPS synchronizer** *IEEE JOURNAL OF SOLID-STATE CIRCUITS*  
Namgoong, W., Reader, S., Meng, T. H.  
2000; 35 (6): 856-864

- **Partitioning analog and digital processing in mixed-signal systems** *JOURNAL OF VLSI SIGNAL PROCESSING SYSTEMS FOR SIGNAL IMAGE AND VIDEO TECHNOLOGY*  
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2000; 24 (1): 59-65
- **Position based CDMA with multiuser detection (P-CDMA/MUD) for wireless ad hoc networks** *IEEE 6th International Symposium on Spread Spectrum Techniques and Applications*  
Rodoplu, V., Meng, T. H.  
IEEE.2000: 336-340
- **A 6Kbps to 85Kbps scalable audio coder** *IEEE International Conference on Acoustics, Speech, and Signal Processing*  
Verma, T. S., Meng, T. H.  
IEEE.2000: 877-880
- **GPS receiver design for portable applications** *IEEE International Conference on Acoustics, Speech, and Signal Processing*  
Namgoong, W., Meng, T.  
IEEE.2000: 3706-3709
- **Amplitude and phase estimation considerations for asynchronous CDMA with successive interference cancellation** *52nd IEEE Vehicular Technology Conference (VTC 2000)*  
Andrews, J. G., Meng, T. H.  
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- **Efficient transmission of triangle meshes to graphics processors** *IEEE Annual Workshop on Signal Processing Systems: Design and Implementation*  
Chou, P. H., Meng, T. H.  
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- **Reduced-periodicity subspace-based blind adaptive decorrelating and MMSE detectors for multirate CDMA** *IEEE 6th International Symposium on Spread Spectrum Techniques and Applications*  
Rodoplu, V., Meng, T. H.  
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- **Minimum energy mobile wireless networks** *IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS*  
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- **An experimental study of temperature effect on modal parameters of the Alamosa Canyon Bridge** *EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS*  
Sohn, H., Dzwonczyk, M., Straser, E. G., Kiremidjian, A. S., Law, K. H., Meng, T.  
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- **Low-power parallel video compression architecture for a single-chip digital CMOS camera** *JOURNAL OF VLSI SIGNAL PROCESSING SYSTEMS FOR SIGNAL IMAGE AND VIDEO TECHNOLOGY*  
Hsieh, J. Y., Meng, T. H.  
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- **POSET timing and its application to the synthesis and verification of gate-level timed circuits** *IEEE TRANSACTIONS ON COMPUTER-AIDED DESIGN OF INTEGRATED CIRCUITS AND SYSTEMS*  
Myers, C. J., Rokicki, T. G., Meng, T. H.  
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- **The Cramer-Rao bound for position and amplitude estimation of multiple pulses in Gaussian noise** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS II-EXPRESS BRIEFS*  
Gatherer, A., Meng, T. H.  
1999; 46 (4): 448-456
- **A low power GPS receiver architecture** *IEEE Global Communications Conference (GLOBECOM 99)*  
Lee, H. W., Meng, T. H.  
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- **Low-power DV encoder architecture for digital CMOS camcorder** *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 99)*



- Hsieh, J. Y., Meng, T. H.  
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- **Sinusoidal modeling using frame-based perceptually weighted matching pursuits** *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 99)*  
Verma, T. S., Meng, T. H.  
IEEE.1999: 981–984
  - **How good is your predictor? Expanding confidence intervals to define probability densities on adaptive parameters** *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 99)*  
Dzwonczyk, M., Meng, T. H.  
IEEE.1999: 1233–1236
  - **Error-resilient pyramid vector quantization for image compression** *IEEE TRANSACTIONS ON IMAGE PROCESSING*  
Hung, A. C., Tsern, E. K., Meng, T. H.  
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  - **Low-power signal processing system design for wireless applications** *IEEE PERSONAL COMMUNICATIONS*  
Meng, T. H., Hung, A. C., Tsern, E. K., Gordon, B. M.  
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  - **Low-power wireless video systems** *IEEE COMMUNICATIONS MAGAZINE*  
Meng, T. H.  
1998; 36 (6): 130-136
  - **Checking combinational equivalence of speed-independent circuits** *FORMAL METHODS IN SYSTEM DESIGN*  
Beerel, P. A., Burch, J. R., Meng, T. H.  
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  - **Covering conditions and algorithms for the synthesis of speed-independent circuits** *IEEE TRANSACTIONS ON COMPUTER-AIDED DESIGN OF INTEGRATED CIRCUITS AND SYSTEMS*  
Beerel, P. A., Myers, C. J., Meng, T. H.  
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  - **Power consumption of parallel spread spectrum correlator architectures** *International Symposium on Low Power Electronics and Design*  
Namgoong, W., Meng, T.  
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  - **An analysis/synthesis tool for transient signals that allows a flexible sines+transients+noise model for audio** *IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 98)*  
Verma, T. S., Meng, T. H.  
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