Twenty-Seventh Annual
Communication Theory Workshop

May 3 - May 6, 1998

South Seas Plantation
P.O. Box 194
Captiva Island, FL 33924
(near Ft. Meyers)

Technical Program (tentative)

MONDAY AM
Space-Time Coding
Organizer: Jerry Foshcini and Mike Fitz
1. Shannon Formula Motivation for Space-Time Codes
   - Jerry Foschini, Bell Laboratories
2. Further Results on Code Design and Synchronization in Space-Time Codes
   - Mike Fitz, Ohio State University
3. Space-Time Codes for Distributed Sensor Networks
   - Greg Pottie, UCLA
4. Space-Time Codes:Theory, Design and Performance
   - Nambi Seshadri, AT&T Labs-Research
5. Space - The Final Frontier
   - John Cioffi, Stanford University
6. Information-Theoretic Considerations in Space-Time Coding
   - Brian Hughes, North Carolina State University

MONDAY PM
OFDM
Organizer: Len Cimini
1. Overview
   - Len Cimini, AT&T Labs-Research
2. Synchronization and Channel Estimation for OFDM Systems
   - Katie Wilson, Lulea University
3. Clipping Mitigation Techniques for OFDM
   - Alan Gatherer, Texas Instruments
4. Optimization and Performance Evaluation of Multicarrier Transmission
   - Paul Wittke, Queen's University
5. Trellis Codes with Periodic Structure for Interleaved OFDM
   - Rick Wesel, UCLA
6. Implementing Realtime Multicarrier Systems
   - Gerhard Fettweis, Dresden University of Technology

TUESDAY AM
Iterative Techniques for Detection and Estimation
Organizer: Costas Georghiades
1. Theory and Applications of the EM Algorith
   - Jim Modestino
2. New Trellis-Based Decoding Algorithms for Codes
   - Shu Lin

3. Iterative Bahl Decoding Is Maximum-Likelihood Decoding
   - Joseph A. O'Sullivan, Donald L. Snyder, and Long Duan
4. Iterative Methods for Reliable Detection in Communication Systems
   - Christian Schlegel
5. EM and Related Iterative Algorithms for Multiuser Detection
   - H. Vincent Poor
6. Sequence Estimation in Interference Via the EM Algorithm
   - P. Spasojevic and Costas N. Georghiades

TUESDAY PM
WIRELESS MOBILE COMMUNICATION NETWORK PROTOCOLS
Organizer: Barry Levitt
1. Congestion Control for Mixed-Loss Environments
   - Bob Durst, MITRE
2. Architectural Features of an Information Service for Untethered Warfighters and Peacekeepers
   - Dave White, MIT/Lincoln Labs
3. Wireless QoS-Capable Network Protocols
   - Greg Lauer, BBN
4. Improving TCP Performance in a Mobile Satellite Environment
   - Keith Scott, JPL
5. Coding for Spread ALOHA Multiple Access (SAMA)
   - Norm Abramson
6. Adaptive Transmission Protocols for Frequency-Hop Radio Networks
   - Mike Pursley and John Gass

WEDNESDAY AM
SIGNAL PROCESSING FOR INFORMATION OBJECTS
Organizer: Steve Weinstein
1. Processing for high-density magnetic storage
   - Hemant Thapar, Datapath Systems
2. Multirate codes from time-varying filters for recording and transmission signals
   - Johannes Peek, Univ. of Nijmegen
3. (Digital) watermarking for DVD
   - Ingemar Cox, NEC Research Institute
4. Digital objects, processing, and intellectual property
   - Robert Kahn, Corp. for National Research Initiatives
5. Signal processing for streaming services in the Internet
   - Gary Greenbaum, RealNetworks