ADVANCED SHORT COURSE/WORKSHOP

on

ADVANCED METHODS OF PHYSIOLOGICAL SYSTEM MODELING

September 18-20, 1986
PACIFIC SHORE HOTEL, CALIFORNIA ROOM
1819 OCEAN AVENUE
SANTA MONICA, CALIFORNIA

organized by the
BIOMEDICAL SIMULATIONS RESOURCE
UNIVERSITY OF SOUTHERN CALIFORNIA

under the sponsorship of the
BIOMEDICAL RESEARCH TECHNOLOGY PROGRAM
DIVISION OF RESEARCH RESOURCES
NATIONAL INSTITUTES OF HEALTH

Chairman and organizer:
Vasilis Z. Marmarelis
Director of the Biomedical
Simulation Resource
Day 3

September 20, 1986

9:00  Auditory Evoked Potentials to Noise and Noise Modulated Sounds  
      Aage Moller  
      Univ. of Pittsburgh

9:30  Measurements of Electrical Impedance in the Cochlea: Implications for the Design of Cochlear Implants  
      Francis Spelman  
      Univ. of Washington

10:00 On Lateral Inhibition, Adaptation and Kernel Analysis  
      Robert Pinter  
      Univ. of Washington

10:30 Dynamics of Cat X and Y Retinal Ganglion Cells, and Some Related Issues in Nonlinear Analysis  
      Jonathan Victor  
      Cornell Univ. Medical College

11:00 Nonlinear Systems Analysis of Synaptic Transmission in the Mammalian Hippocampus  
      Theodore Berger  
      Univ. of Pittsburgh

11:30 Nonlinear Properties of the Somatosensory System  
      Robert Scabassi  
      Univ. of Pittsburgh

12:00 Lunch  

1:00  Biological Phenomena: the Fractal Approach  
      Hun Sun  
      Drexel University

1:30  Identification of Systems with Hysteresis  
      George Bekey  
      Univ. of Southern Calif.

2:00  Are Expert Systems Models for Human Thought Processes?  
      Terry Bahill  
      Univ. of Arizona

2:30  Functional Expansions, Parallel Cascades and Nonlinear Difference Equations  
      Michael Korenberg  
      Queen’s University

3:00  Physiological Interpretation of Kernels  
      L. Stark and W. Krenz  
      Univ. of Calif., Berkeley

3:30  Ternary Stimuli for Measuring Important Higher Order Kernels  
      Stanley Klein  
      Univ. of Houston

4:00  A Practical Nonstochastic Approach to Nonlinear Time-Domain Analysis  
      Eric Sutter  
      Smith-Kettwell Inst.

4:30  A Nonlinear Model of Muscle Fiber Mechanics  
      Ian Hunter  
      McGill University

5:00  A Motor Control Model Through Three Domains  
      Lloyd Partridge  
      Univ. of Tennessee

      Vasilis Marmarelis

6:30  Closing Remarks