

BIOMEDICAL SIMULATIONS RESOURCE
UNIVERSITY OF SOUTHERN CALIFORNIA

Short Course On

**NONLINEAR SYSTEM MODELING
AND DATA ANALYSIS
USING *LYSIS***

May 14–15, 1993

Marina International Hotel
4200 Admiralty Way
Marina del Rey, California

Sponsored by

BIOMEDICAL RESEARCH TECHNOLOGY PROGRAM
NATIONAL CENTER FOR RESEARCH RESOURCES
NATIONAL INSTITUTES OF HEALTH

Chairman and Organizer: Vasilis Z. Marmarelis, Ph.D.
Co-Director, Biomedical Simulations Resource

Invited Lecturer: Michael Korenberg, Ph.D.
Queen's University, Ontario, Canada

BMSR Lecturers: Spiridon H. Courellis, Ph.D.
Ki H. Chon, Ph.D.

DAY 1

Friday, May 14, 1993

- 9:00 – 10:00 Introduction to nonlinear system modeling and the use of *LYSIS* (Marmarelis)
- 10:00 – 10:15 Coffee Break
- 10:15 – 11:30 Computer demonstrations of *LYSIS* (Marmarelis, Courellis)
- 11:30 – 1:00 Lunch Break

Practice sessions on *LYSIS*

- 1:00 – 2:00 I. Nonparametric system modeling and time-series data analysis (Marmarelis, Courellis)
- 2:00 – 3:00 II. Parametric system modeling and time-series data analysis (Marmarelis, Courellis)
- 3:00 – 4:30 III. Analysis of real data (Marmarelis, Chon)

DAY 2

Saturday, May 15, 1993

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| 9:00 – 10:00 | Fast orthogonalization techniques for system modeling and time-series data analysis (Korenberg) |
| 10:00 – 10:15 | Coffee Break |
| 10:15 – 11:30 | Computer demonstrations of fast orthogonalization techniques (Korenberg, Chon) |
| 11:30 – 1:00 | Lunch Break |
| 1:00 – 2:00 | <i>LYSIS</i> : assessment of capabilities/limitations and future plans |
| 2:00 – 2:15 | Coffee Break |
| 2:15 – 3:00 | Open Discussion |
| 3:00 – 4:00 | Open Practice Sessions |
| 4:00 – 5:30 | Reception Crystal Fountain Patio |

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