

*Workshop on*  
**Advanced Methods of  
Physiological  
System Modeling**  
Saturday - April 20, 2002

**Marina Beach Marriott**  
4100 Admiralty Way  
Marina del Rey, California 90292  
(310) 301-3000

Supported by  
**Division of Biomedical Technology**  
**National Center for Research Resources**  
**National Institutes of Health**

Organized by  
**Vasilis Z. Marmarelis**



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THE  
**BMSR**

<http://bmsr.usc.edu>

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**REGISTRATION INFORMATION**  
**2002 BMSR WORKSHOP**

I would like to attend the Workshop on "Advanced Methods of Physiological System Modeling", to be held in Marina del Rey, California, on Saturday, April 20, 2002. There is no registration fee for participation in the Workshop, but space is limited and registration is on a first-come/first-serve basis.

**REGISTRATION DEADLINE: Friday, April 12, 2002**

*I understand that I have to make my own arrangements for travel and accommodations. Hotel information and group discount rate will be provided upon receipt of registration.*

**Register via internet: <http://bmsr.usc.edu> (Workshops)**  
**Register via mail/fax (213) 740-0343: Complete the form below.**

X.....

\_\_\_\_\_  
Signature

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Date

(Please Print)

First Name

Middle

Last Name

Address

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Mail To:

USC BMSR Workshop 3650 McClintock Avenue Olin Hall 500 Los Angeles, CA 90089-1451  
Phone: (213) 740-0342 Fax: (213) 740-0343 email: [marcos@bmsr.usc.edu](mailto:marcos@bmsr.usc.edu)

## About the Workshop

The Workshop's goals are to bring together active investigators of physiological systems to present and discuss cutting-edge research results with emphasis on nonlinear system modeling and multi-dimensional data analysis. The latest methodologies will be presented by leading experts, followed by discussion and extensive interactions among the participants. The focus will be on advanced, yet practical, methods of experimental data analysis using novel mathematical and computational techniques.

## About the BMSR

The Biomedical Simulations Resource (BMSR) at the University of Southern California was founded in 1985 under the sponsorship of the National Center for Research Resources (NCRR)/National Institutes of Health (NIH). The BMSR is dedicated to advancing the state of the art in biomedical modeling and simulation through its four innovative core research projects and fourteen nationwide collaborative projects. It also serves the biomedical community through specialized software development and distribution related to its core and collaborative research. In addition, it performs training and dissemination activities (including short courses and workshops) that serve as a catalyst of collaborative and joint discovery for biomedical investigators worldwide.

For further information please contact  
Marcos Briano at (213) 740-0342  
or e-mail  
marcos@bmsr.usc.edu

## Speakers

(in alphabetical order)

Bardakjian, B.J., *University of Toronto*  
**Detection and Control of Epileptic Seizures  
Using Artificial Neural Networks**

Berger, T.W., *University of Southern California*  
**Nonlinear Modeling of Spatio-Temporal  
Interactions Among Hippocampal Neurons**

Deadwyler, S.A., *Wake Forest University*  
**Population Coding in Hippocampal Neurons –  
The Necessity of Transfer Functions for  
Correct Short-Term Memory Performance**

French, A.S., *Dalhousie University*  
**Searching for Connections in a  
Mammalian Sensory Pathway by  
Nonlinear Analysis of Spike Trains**

Grzywacz, N.M., *University of Southern California*  
**A Bayesian Framework for Sensory Adaptation**

Kearney, R.E., *McGill University*  
**Nonlinear Identification and Modeling of Reflex  
Contributions to Joint Stiffness**

Klein, S., *University of California, Berkeley*  
**Multifocal Stimuli for Source Localization of  
Visual Evoked Potentials**

Lewis, E.R., *University of California, Berkeley*  
**Wiener Kernel Representations of Signal  
Processing by the Mammalian Cochlea**

Lipson, E., *Syracuse University*  
**Applications of Parallel Cascade Identification**

Marmarelis, V.Z., *University of Southern California*  
**Efficient Nonlinear Modeling of Physiological  
Systems with Multiple Inputs and Outputs**

Sclabassi, R.J., *University of Pittsburgh*  
**Separation of Spiky Transient Activity in  
Epileptic EEG/MEG Data Using  
Morphological and Multiresolution Analysis**

Segundo, J.P., *University of California, Los Angeles*  
**Independent or Correlated Converging  
Presynaptic Trains Embody Poisson or  
Cluster Point Processes**

Sutter, E., *Smith-Kettlewell Eye Research Foundation*  
**Synthesizing Response Sequences from the  
Kernel Series of Multi-Input Systems**

Veng-Pedersen, P., *University of Iowa*  
**Pharmacodynamic Analysis of Erythropoietin**

Westwick, D.T., *University of Calgary*  
**Separable Least Squares: A New Approach to  
Block Structured Identification**