

12th INTERNATIONAL WORKSHOP ON DYNAMICS AND CONTROL
SHERATON UNIVERSAL HOTEL, UNIVERSAL CITY, USA
AUGUST 19-21, 2002
PROGRAM SCHEDULE AND LIST OF PRESENTERS

SUNDAY – AUGUST 18, 2002

3:00-5:30 PM **Registration**

Reception in Room Terrace D

6:00-8:00 PM Hosted Bar/Hors d'oeuvres, Sheraton Universal Hotel, Universal City

MONDAY – AUGUST 19, 2002

6:30-8:00 AM Breakfast Buffet in Room Terrace B

8:15-8:20 AM **Firdaus Udwardia**, *University of Southern California, Los Angeles, CA*
Opening and Announcements

8:20-8:30 AM **Chrysostomos Nikias**, *Dean, School of Engineering, University of Southern California, Los Angeles, CA*
Welcome

TECHNICAL SESSION 1: 8:30-10:00 AM in Terrace A

Session Chair: **George Leitmann**, *University of California, Berkeley, CA*

8:30-9:00 AM **Rudolf Kalman**, *ETH, Zurich, Switzerland, and University of Florida, Gainesville, FL*
Randomness and Probability and Fuzziness

9:00-9:30 **V. Lakshmikantham**, *Florida Institute of Technology, Melbourne, FL*
Monotone Approximations and Rapid Convergence

9:30-10:00 AM **Angelo Miele**, *Rice University, Houston, TX*
On Feasibility of Launch Vehicle Designs

10:00-10:15 AM Break

TECHNICAL SESSION 2: 10:15-11:45 AM in Terrace A

Session Chair: **Lotfi Zadeh**, *University of California, Berkeley, CA*

10:15-10:45 AM **George Leitmann**, *University of California, Berkeley, CA*
A Direct Method of Optimization and its Application to a Class of Differential Games

10:45-11:15 **Andrew N. Krasovskii**, *Russian Academy of Sciences, Ural Branch, Russia*
Stable Mutual Tracking of Motions for the Real Dynamical Object and its Virtual Model

11:15-11:45 AM **Firdaus Udwardia**, *University of Southern California, Los Angeles, CA*
Constrained Motion with Nonideal Constraints

11:45-1:30 PM Lunch

TECHNICAL SESSION 3: 1:30-3:00 PM in Terrace A

Session Chair: **Angelo Miele**, *Rice University, Houston, TX*

1:30-2:00 PM **Vladimir Matrosov**, *Russian Academy of Sciences, Stability and Nonlinear Dynamics Research Center of RAS, Moscow, Russia*
Methods of the Stability and Different Dynamic Properties Analysis for Mechanical and Control Systems

2:00-2:30 **A. V. Balakrishnan**, *University of California, Los Angeles, CA*
Superstability: Theory and Experiment

2:30-3:00 PM **Marianna Shubov**, *Texas Tech University, Lubbock, TX*
Asymptotic and Spectral Analysis of Aircraft Wing Model in Subsonic Airflow

3:00-3:15 PM Break

TECHNICAL SESSION 4: 3:15-4:45 PM in Terrace A

Session Chair: **Eberhard Hofer**, *University of Ulm, Germany*

3:15-3:45 PM **Roger Jelliffe**, *University of Southern California, Los Angeles, CA*
Optimizing Individualized Drug Therapy with Nonparametric Population Models and Multiple Model (MM) Bayesian Adaptive Control

3:45-4:15 **Stefan Müller**, *Otto-von-Guericke-Universität-Magdeburg, Magdeburg, Germany*
Control of Spiral Waves in Excitable Media

4:15-4:45 PM **Rui Dilão**, *Instituto Superior Técnico, Nonlinear Dynamics Group, Lisbon, Portugal*
Turing Patterns in the Neighborhood of a Hopf Bifurcation

4:45 PM End of Technical Sessions for Monday

TUESDAY – AUGUST 20, 2002

6:30-8:00 AM Breakfast Buffet in Room Terrace B

TECHNICAL SESSION 5: 8:30-10:00 AM in Terrace A

Session Chair: **A. V. Balakrishnan**, *University of California, Los Angeles, CA*

8:30-9:00 AM **Lotfi Zadeh**, *University of California, Berkeley, CA*
It is a Fundamental Limitation to Base Probability Theory on Bivalent Logic

9:00-9:30 **Felix Chernousko**, *Russian Academy of Sciences, Institute for Problems in Mechanics, Moscow, Russia*
Modeling of Snake-like Locomotion

9:30-10:00 AM **Richard Day**, *University of Southern California, Los Angeles, CA*
Engineering Control and Economic Policy

10:00-10:15 AM Break

TECHNICAL SESSION 6: 10:15 AM - 11:45 PM in Terrace A

- Session Chair:** Felix Chernousko, *Russian Academy of Sciences, Institute for Problems in Mechanics, Moscow, Russia*
10:15-10:45 AM Frank Lehn, *University of Ulm, Germany*
A Time-Delay Approach for Modeling Chronic Radiation Injury Dynamics
 10:45-11:15 Ruedi Stoop, *ETH, Switzerland*
What is behind "Synchronization and Control by Hard Limiters"?
 11:15-11:45 AM Punit Parmananda, *UAEM, Mexico*
Suppressing Spatio-Temporal Complexity Using Local Forcing
 11:45-1:30 PM Lunch

TECHNICAL SESSION 7: 1:30-3:00 PM in Terrace A

- Session Chair:** V. Lakshmikantham, *Florida Institute of Technology, Melbourne, FL*
1:30-2:00 PM Ali Nayfeh, *Virginia Polytechnic Institute, Blacksburg, VA*
A Delayed-Position Feedback Controller for Cranes
 2:00-2:30 Jonathan Nichols, *Duke University, Durham, NC*
Attractor-based Approaches in Structural Health Monitoring
 2:30-3:00 PM José de Espindola, *Federal University of Santa Catarina, Brazil*
A Generalized Fractional Derivative Approach to Viscoelastic Material Properties Measurement and Vibration Control Design
 3:00-3:15 PM Break

TECHNICAL SESSION 8: 3:15-4:45 PM in Terrace A

- Session Chair:** Ali Nayfeh, *Virginia Polytechnic Institute, Blacksburg, VA*
3:15-3:45 PM Masanori Sugisaka, *Oita University, Japan*
Development of an Artificial Brain for LifeRobot
 3:45-4:15 Alexander Kurzhanski, *Russian Academy of Sciences, MSU, Moscow, Russia, and University of California, Berkeley, CA*
On the Problem of Measurement Feedback Control
 4:15-4:45 PM Aghalaya Vatsala, *University of Louisiana, Lafayette, LA*
Generalized Quasilinearization Method for First Order Initial Value Problems
 4:45 PM End of Technical Sessions for Tuesday

BANQUET

- 7:00-9:30 PM Banquet Dinner, Sheraton Universal Hotel, Room Terrace D

WEDNESDAY – AUGUST 21, 2002

- 6:30-8:00 AM Breakfast Buffet in Room Terrace B

TECHNICAL SESSION 9: 8:30–10:00 AM in Terrace A

- Session Chair:** Henryk Flashner, *University of Southern California, Los Angeles, CA*
8:30-9:00 AM Dragoslav Siljak, *Santa Clara University, Santa Clara, CA*
Inclusion Principle for Complex Systems: A Progress Report
 9:00-9:30 Srinivasa Leela, *State University of New York at Geneseo, Geneseo, NY*
A New Concept Unifying Lyapunov and Orbital Stabilities
 9:30-10:00 AM Ye-Hwa Chen, *Georgia Institute of Technology, Atlanta, GA*
Fuzzy Theorems: Principles and Applications
 10:00-10:15 AM Break

TECHNICAL SESSION 10: 10:15 AM – 11:45 PM in Terrace A

- Session Chair:** Hubertus von Bremen, *University of Southern California, Los Angeles, CA*
10:15-10:45 AM Helio Morishita, *University of São Paulo, Brazil*
Dynamics and Control of a Two-Body Floating System under Realistic Environmental Loads
 10:45-11:15 Jessé de Souza, *University of São Paulo, Brazil*
Nonlinear Dynamics of an Archetypal Model of Ships Motions in Tandem
 11:15-11:45 AM Nina Matrossova, *Stability and Nonlinear Dynamics Research Center, RAS, Moscow, Russia*
On the Stability of Motions in Critical Cases
 11:45-1:30 PM Lunch

TECHNICAL SESSION 11: 1:30–3:00 PM in Terrace A

- Session Chair:** Alexander Kurzhanski, *Russian Academy of Sciences, MSU, Moscow, Russia, and University of California, Berkeley, CA*
1:30-2:00 PM Christophe Deissenberg, *GREQAM, Université de la Méditerranée, France*
Real Effects of Money in an Economy with Heterogeneous Agents
 2:00-2:30 Henryk Flashner, *University of Southern California, Los Angeles, CA*
Bifurcation Analysis of Nonlinear Periodic Systems Using Expanded Point Mapping
 2:30-3:00 PM Hans Ingo Weber, *PUC, Brazil*
Using Information of the Transient Behavior to Approach the Phase Portrait of a Dynamical System
 3:00-3:15 PM Break

TECHNICAL SESSION 12: 3:15–5:15 PM in Terrace A

- Session Chair:** Vladimir Matrosov, *Russian Academy of Sciences, Stability and Nonlinear Dynamics Research Center of RAS, Moscow, Russia*
3:15-3:45 PM Nicolai Haydn, *University of Southern California, Los Angeles, CA*
The Limiting Distribution of Return Times in Dynamical Systems
 3:45-4:15 José Balthazar, *State University of São Paulo at Rio, Brazil*
On A Control Technique by Using Internal Resonance's and Saturation Phenomenon Applied to Ideal and Non-Ideal Machinery
 4:15-4:45 PM Hubertus von Bremen, *University of Southern California, Los Angeles, CA*
Beneficial Effects of Time Delays in the Control of Structural and Mechanical Systems
 4:45-5:15 PM Group Discussion and Closing

