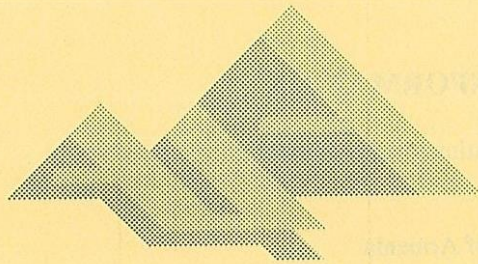
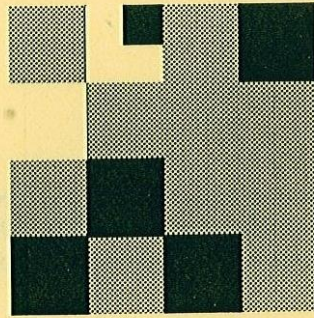


FINAL PROGRAM
INTAS RESEARCHERS'
SYMPOSIUM
OCTOBER 10 & 11, 1995
YEREVAN, ARMENIA



AMERICAN UNIVERSITY OF ARMENIA



ENGINEERING RESEARCH CENTER

PURPOSE OF SYMPOSIUM

The purpose of this symposium is to bring together INTAS researchers from the Commonwealth of Independent States (CIS) and their European counterparts for an exchange of information, ideas, and research methodology.

LANGUAGE OF PRESENTATION

Papers will be presented in English, Armenian, or Russian. Simultaneous translation will be provided.

ADDITIONAL INFORMATION

For additional information, please contact:

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40 Marshall Bagramian Street
Yerevan, Armenia 375019

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E-mail: ahambari@aua.arminco.com

COST

The workshop and symposium, including lunches and closing dinner, are free to persons presenting papers. Attendance at the sessions is free and open to the public. Attendees must pay for their own transportation and lodging.

ACKNOWLEDGEMENTS

The organizing committee would like to thank INTAS for providing the funding to support the symposium and participating researchers.

SCHEDULE

Day 0 (Monday, October 9)

- 11:00-13:00 Registration
- 13:00-15:00 Cognac Factory Tour

Day 1 (Tuesday, October 10)

- 08:00-09:00 Registration
- 09:00-09:30 Welcome, Mihran Agbabian, President, American University of Armenia and Armen Der Kiureghian, Dean, College of Engineering, American University of Armenia
- 09:30-10:30 **The INTAS Program**
 - 09:30-10:00 Jan-E Askeröi, Scientific Officer for Engineering, Aeronautics and Space, INTAS, Norway
 - 10:00-10:30 Discussion
- 10:30-12:30 **Technical Session 1 - Computational Methods**
 - Chair: Rusk Masih
 - 10:30-11:00 "Hybrid Formulations for the Finite Element Method", Joao Teixeira de Freitas, Centro de Mecanica e Engenharia Estruturais, Portugal
 - 11:00-11:30 "Nonlinear Stochastic Analysis", Ashot Hakopian, American University of Armenia
 - 11:30-12:00 "The Role of Nonlinear Analysis in Engineering Practice", Scott Campbell, American University of Armenia
 - 12:00-12:30 "A New Method for Nonlinear Random Vibrations", Armen Der Kiureghian, American University of Armenia/University of California at Berkeley, USA
- 12:30-14:00 **Lunch**

SCHEDULE (cont.)

Day 1 (Tuesday, October 10) (cont.)

14:00-16:00 Technical Session 2 - Wave Propagation

Chair: Michael Melkumian

- 14:00-14:30 "Soil-Structure Interaction Effects Applied to Environmental Problems", Guido de Roeck, Katholieke Universiteit Leuven, Belgium
- 14:30-15:00 "A New Approach to the Investigation of Rayleigh Type Waves", Sergey Ambartsumian and Mels Belubekian, Institute of Mechanics of the Armenian National Academy of Science
- 15:00-15:30 "A New Approach to the Waves Problem of Interaction Between Thin Deformable Structures and External Gas Flow", Mels Belubekian and Mels Minassian, Institute of Mechanics of the Armenian National Academy of Science
- 15:30-16:00 "Wave Propagation in Anisotropic Medium", Vladimir Sarkisyan, Samvel Sarkisyan, and Astghik Sarkisyan, Department of Mechanics, Yerevan State University

16:15-17:15 Technical Session 3 - Seismic Resistance

Chair: Scott Campbell

- 16:15-16:45 "Testing of Metal-Rubber Seismic Isolation Bearings Under Horizontal Seismic Load", Michael Melkumian, Valery Arzoumanian, Paruir Zadoyan, Tigran Nersessian, and Arthur Manoukian, Earthquake Engineering Center of the National Survey of Seismic Protection
- 16:45-17:15 "Behavior of Frame Structure Strengthened by Steel Jacketing", Michael Melkumian, David Chalkatrian, Grigor Vartanian, and Tigran Martirosian, Earthquake Engineering Center of the National Survey of Seismic Protection

17:30-18:00 Shake Table Demonstration

Michael Melkumian, Earthquake Engineering Center of the National Survey of Seismic Protection

SCHEDULE (cont.)

Day 2 (Wednesday, October 11)

09:00-11:00 **Technical Session 4 - Applied Mechanics**

Chair: Ashot Hakopian

- 09:00-09:30 “On Asymptotically Exact Solutions of One Class of Mixed Boundary Layer Problems of Elasticity Theory and Frequencies of Free Vibrations of Foundations of Finite Power”, Lenser Aghalovian, Suren Gevorgian, and Avetik Sahakian, Institute of Mechanics of the Armenian National Academy of Science
- 09:30-10:00 “Sum Frequency Beam Analysis for Temporal and Spectral-Temporal Images Determination of Ultra-Short Laser Pulses”, Rudolf Gyuzalian, Institute for Physical Research of the Armenian National Academy of Science
- 10:00-10:30 “The Investigation of the Influence of the Earth Surface on the Intensity of Seismic Disturbances”, Ashot Shekoyan, Alexander Bagdoyev, and Vladimir Ambartsumian, Institute of Mechanics of the Armenian National Academy of Science
- 10:30-11:00 “Bayesian Assessment of Model Uncertainty”, Phillipe Geyskens, University of California at Berkeley, USA

11:15-12:45 **Technical Session 5 - Scientific Applications**

Chair: Artak Hambarian

- 11:15-11:45 “Elaboration of an Intellectual, Universal, Software, Portable Monitor-Cardioscope”, Marat Muradian, Vazgen Melikian, Movses Muradian, Robert Dashtoyan, and Emma Gasparian, State Engineering University
- 11:45-12:15 “Mass Opinion and the Democratic Process”, Marine Kourktchian, Department of Sociology, Yerevan State University
- 12:15-12:45 “The Geometric Structure of Eigenvalue Problems”, Mark Kaiser, American University of Armenia

SCHEDULE (cont.)

Day 2 (Wednesday, October 11) (cont.)

13:00-14:30

Lunch

14:30-16:30

Round-Table Discussion

Research Needs in Armenia

Moderator: Armen Der Kiureghian, Dean, College of Engineering,
American University of Armenia

Panelists: Mihran Agbabian, President, American University of
Armenia

Jan-E Askeröi, Scientific Officer for Engineering,
Aeronautics and Space, INTAS, Norway

Arest Beglarian, Rector, Institute of Architecture and
Construction

Joao Teixeira de Frietas, Centro de Mecanica e
Engenharia Estruturais, Portugal

Vardges Gnuni, Minister of Science, Republic of
Armenia

Radik Martirossian, Rector, Yerevan State University

Guido de Roeck, Katholieke Universiteit Leuven,
Belguim

Fadey Sarkissian, President, Armenian National
Academy of Science

Yuri Sarkissyan, President, State Engineering
University

Recorders: Artak Hambarian, American University of Armenia
Mark Kaiser, American University of Armenia

18:00-21:00

Closing Dinner

INTAS

In order to promote cooperation with scientists from the newly independent states of the former Soviet Union, INTAS was created as an International Association under Belgian private law. Members of INTAS are the European Community, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal, Spain, Switzerland and the United Kingdom. INTAS concentrates on the promotion of research projects jointly performed between research teams of the CIS and member states of INTAS, as well as pan-European scientific networks. Research in all exact and natural sciences, economic sciences as well as human and social sciences is supported by INTAS.

AMERICAN UNIVERSITY OF ARMENIA

The American University of Armenia was established in 1991 in the aftermath of the devastating 1988 earthquake, and offers the only American-style graduate-level education in the former Soviet Union. The University has graduate programs in Engineering (Earthquake and Industrial), Business and Management, and Political Science; certificate programs in Public Health and Teaching of English as a Second Language are also offered. An Engineering Research Center is administered by the College of Engineering, and a Structural Dynamics Laboratory has recently been established, including a 1.5m x 2m shake table. A Manufacturing Laboratory, equipped with machine tools and CAD/CAM systems is under contract.

ORGANIZING COMMITTEE

The organizing committee consists of the following individuals:

Ashot Hakobian (Chair)
Scott Campbell
Armen Der Kiureghian
Artak Hambarian (Administrator)
Mark Kaiser
Rusk Masih

TRANSPORTATION

Air transportation to Armenia is available on a twice-weekly schedule departing from Amsterdam and a weekly schedule departing from Paris and Athens. Daily flights are available from Moscow. Air service is also available from numerous points in the Middle East and CIS.

LODGING

Lodging should be arranged at Hotel Armenia in Yerevan. For further information contact Hotel Armenia at:

Hotel Armenia
1 Vramshapouh Street
Yerevan, Armenia

Phone: (3742) 52.55.83

Fax: (3742) 15.18.02

MONEY

At the present time, Armenia is a cash society. Travelers Checks and credit cards may not be used within Armenia. Additionally, it may be difficult to change currency other than US dollars. It is suggested that participants bring US dollars in small denominations.

