

SYMPOSIUMS ON NONLINEAR MECHANICS IN YUGOSLAVIA

This symposium entitled "*Nonlinear Sciences at the Threshold of the Third Millennium*" was organized with a wish to unite in a single symposium, on the basis of the *mathematical phenomenology* of *Mihajlo Petrović Alas*, quite disparate sciences with the aim of integrating the knowledge of the participants of our symposium. This is a serious and a long-term task of science.

How did it all start? It started here, at the Faculty of Mechanical Engineering, University of Niš.

Prof. *Danilo P. Rašković* (Ph.D. in mechanical engineering and BS in mathematics), the first head of the Chair for Mechanics and Automatics, while teaching mechanics at the Department for Mechanical Engineering at the newly founded Faculty of Technical sciences, directed his youngest and most talented students towards studying nonlinear oscillations and nonlinear mechanics. Thereafter, he initiated a cooperation with the academician *Jury Aleksejevitch Mitropolsky* and a leading school of nonlinear mechanics, asymptotic methods and nonlinear oscillations at the Institute for Mathematics in Kiev. That is how a center for nonlinear mechanics was established at the Chair for Mechanics, Faculty of Mechanical Engineering in Niš. They were supported by the Institute for Mathematics – SANU from Belgrade and by the scientist from all the Universities in Yugoslavia, especially Universities in Belgrade and Novi Sad. The organization of symposiums on nonlinear sciences followed.

The *first symposium on nonlinear mechanics - Nonlinear Dynamics*, organized by JDM and Serbian Society for Mechanics, was held in Arandjelovac, 23-25 November 1983. Prof. Jury Aleksejevitch Mitropolsky gave the invited plenary lecture. All the members of the Chair for Mechanics and the Chair for Hydraulic Engineering of the Faculty of Mechanical Engineering University of Nish took part in this and other symposiums; they were coorganizers as well.

The *Second Yugoslav Symposium on Nonlinear Mechanics* entitled: "*The First Yugoslav Conference on Nonlinear Deterministic and Stochastic Processes in Dynamical Systems with Applications YCNP Niš '91*", August 27-30, 1991, organized by the Faculty of Mechanical Engineering was held in Niš. The Chairman of the Scientific Committee was Prof. Veljko Vujičić, while the Chairman of the Organizing Committee was Prof. Katica Hedrih. Proceedings of Abstracts was printed; the papers and invited lectures which were approved were printed in the first and the following issues of the **University Journal – Facta Universitatis, new Series – Mechanics, Automatic Control and Robotics**. This Series was the third Series, which was being published, besides the *Series Mathematics, Informatics and Electronics, and Energetics*. William Nash, Kazuyuki Yagasaki..., gave the invited lectures, at this international symposium.

The invited plenary lectures were given by the following Yugoslav scientists: *Veljko A. Vujičić, Vladan Djordjević, Ljubomir Grujić, Božidar Vujanović, Livija Cvetičanin,...*

Prof. *Slobodan Laković*, the Dean of the Faculty of Mechanical Engineering University of Niš and a member of the Organizing Committee, has significantly contributed

to the success of this symposium.

The **Third Yugoslav Symposium on Nonlinear Mechanics** was held in the form of a *Minisymposium*, as a part of the *XXII Yugoslav Conference on Mechanics in Niš* in 1995. The Faculty of Mechanical Engineering in Niš, with co-organization by the Faculty of Civil Engineering organized this Congress as well.

The Chairman of the Organizing Committee was Prof. *Katica (Stevanović) Hedrih*; Prof. **Zoran Boričić**, the Dean of the Faculty of Mechanical Engineering, was very hospitable. Academician **Vladan Djordjević**, the President of JDM has contributed to the successful organization of this Congress and the Minisymposium. The Chairman of the Scientific Committee was Prof. **Veljko Vujičić**. Professors *Yu. A. Mitropolskiy, V.V. Rumyantsev, Felix Chernousko, Anatolij Martinyuk, Valentina Filchakova, Dan Stamatiu*,... were guest at this symposium.

The **Fourth Symposium on Nonlinear Mechanics** was held in 1997, again in the form of a *Minisymposium*, as a part of the *XIII Yugoslav Congress on Theoretical and Applied Mechanics*. This Congress, held in the Congress Center – Zvezda in Vrnjačka Banja, was organized by the Yugoslav Society for Mechanics. The organization of this Symposium was helped by the Institute for Mathematics – SANU and the Faculty of Mechanical Engineering in Belgrade.

The Chairman of the Scientific Committee was the academician **Nikola Hajdin**, and the Chairman of the Organizing Committee was Prof. *Katica Hedrih*. Professors Anthony Kounadis, Ilia Blekhman, Guiseppe Rega, Angel Baltov,... were guest at this symposium.

The **Fifth Symposium on Nonlinear Mechanics** was being organized with the wish for it to become a tradition and to gather the connoiseurs of nonlinear phenomenology from disparate sciences and dynamic systems and for it to become renown all over the world.

The year of the Fifth Symposium was the year of the 10th **Jubilante issue** of the University Journal – **Facta Universitatis, new Series – Mechanics, Automatic Control and Robotics**. Let these symposiums and the journal *Facta Universitatis* become a permanent characteristic of the University of Niš, Faculty of Mechanical Engineering in Niš and scientific achievements of the Yugoslav scientists; let the matter of participation at these symposiums become a metter of prestige for scientists from other countries too.

This symposium was contributed to Yugoslav science, which has been disrupted by Nato intervention, and let it be a sign that we are better than those who preempt the achievements of others; we don't buy the we create them by our own spiritual effort and creativity in order to use the for the well-being of human kind.

THE Fifth YUGOSLAV SYMPOSIUM ON NONLINEAR MECHANICS
NONLINEAR SCIENCES AT THE THRESHOLD OF THE THIRD MILLENNIUM
OCTOBER, 2-5, 2000, NIŠ

dedicated to the 40th Anniversary of the Faculty of Mechanical Engineering and Faculty of Civil Engineering and Architecture, as well as to the 35th Anniversary of the University of Niš.

SCIENTIFIC COMMITTEE

Y. A. Mitropolskiy, Chairman
V. M. Matrosov, Chairman
V.A. Vujičić, Chairman
V.V. Rumyantsev
V. Lakshmikantham
A. N. Kounadis
N. Hajdin
G. Rega
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D. Debeljković
Z. Boričić
V. Prolović
D. Stojić
K. (Stevanović) Hedrih

NONLINEAR MECHANICS IN YUGOSLAVIA
Photographs

**THE FIRST SYMPOSIUM ON NONLINEAR MECHANICS -
NONLINEAR DYNAMICS,**

organized by Yugoslav Society on Mechanics and Serbian Society for Mechanics, was held in Arandjelovac, 23-25 November 1983. Academician RAN and NANU Jury Aleksejevitch Mitropolsky, from Kiev, gave the invited plenary lecture.



Invited Lecturer: Academician Jury Aleksejevitch Mitropolsky with scientist from Faculty of Mechanical Engineering University of Niš (november 1983).

**YUGOSLAV CONFERENCE ON
DETERMINISTIC AND STOCHASTIC PROCESSES
IN DYNAMICAL SYSTEMS WITH APPLICATIONS NIŠ**
August 27-30,1991



Invited Lecturer: Professor Willam Nash from MTI Masachusets at Yugoslav Conference on Deterministic and Stochastic Processes in Dynamical Systems with Applications Niš 1991

**YUGOSLAV CONGRES ON THEORETICAL AND APPLIED MECHANICS
NIŠ '1995**



Chairmans of the Yugoslav Congress of
Theoretical and Applied Mechanics Niš 1999
corresponding member of Serbian Academy of Science and Arts Božidar Vujanović,
academician Serbian Academy of Science and Arts Vladan Djordjević and
dean of Mechanical Engineering Faculty at Niš Zoran Boričić



At a Congress break: corresponding member of
Serbian Academy of Science and Arts Božidar Vujanović
and professors Dušan Stokić and Katica (Stevanović) Hedrih

**THE FIFTH YUGOSLAV SYMPOSIUM ON NONLINEAR MECHANICS -
NONLINEAR SCIENCES AT THE THRESHOLD OF THE THIRD MILLENNIUM
(YUSNM NIŠ '2000)**

held in Niš, Yugoslavia at October 2-5, 2000. at Faculty of Mechanical Engineering, and it dedicated to the 40th Anniversary of the Faculty of Mechanical Engineering and Faculty of Civil Engineering and Architecture, as well as to the 35th Anniversary of the University of Niš. The Symposium is organized under the patronage of the Department of Technical Sciences, Serbian Academy of Sciences and Arts.



Participants of *The Fifth Yugoslav Symposium on Nonlinear Mechanics - NONLINEAR SCIENCES AT THE THRESHOLD OF THE THIRD MILLENNIUM* (YUSNM NIŠ '2000) from Russia, Greece, China, Bulgaria, Rumunia, Ukraina and Yugoslavia. mr D. Jovanović (Niš, YU), Professor P. Krasil'nikov (Moscow, Russia), Professor Ji Huan He (Shanghai, China), Academician UHEAS K. Hedrih (Niš, YU), Academician SASA M. Prvanović (Belgrade, YU), Professor G. Michaltsos (Athens, Greece), Z. Vosika (Belgrade YU), Professor D. Sophianopoulos (Athens, Greece), Academician SASA N. Hajdin (Belgrade, YU), Ass. Professor P. Rajković (Niš, YU), Professor G. T. Konstantakopoulos (Athens, Greece), Academician RAS V. Rumyantsev (Moscow, Russia), Professor D. Mikičić (Belgrade, YU), Academician ANS V.A. Vujičić,....