



UNIVERSITY OF NIŠ

The scientific journal **FACTA UNIVERSITATIS**

Series: **Mechanics, Automatic Control and Robotics** Vol.2, No 9, 1999 pp. 1005 – 1008

Editor of series: *Katica (Stevanovi)* Hedrih, e-mail: [katica@masfak.masfak.ni.ac.yu](mailto:katica@masfak.masfak.ni.ac.yu)

Address: Univerzitetski trg 2, 18000 Niš, YU, Tel: +381 18 547-095, Fax: +381 18 547-950

[http:// ni.ac.yu/Facta](http://ni.ac.yu/Facta)

**VLADIMIR M. MATROSOV**  
**Academician of Russian Academy of Science**

President of Academy of Nonlinear Sciences –Moscow

*Chairman of the Scientific Committee of the International Conference on  
"Nonlinear Sciences on the Border of Millenniums" dedicated to the 275<sup>th</sup> anniversary  
of the Russian Academy of Sciences, Saint-Petersburg, June 22–24, 1999, Russia*



CURRICULUM VITAE

**Address:** Stability and Nonlinear Dynamics Research Center of Mechanical Engineering Research Institute (MERI) of Russian Academy of Sciences (RAS), Dmitry Uljanov st., bld. 5, entrance 1, room 312. Moscow, 117335, Russia, Phone: (7-095)932-7880, (7-095)132-0147, Fax: (7-095)932-7880

**Date and Place of Birth:** May 08.1932, Altaj Region, Russia.

**Marital status:** Married, two children

**Education:** Air-space design, Kazan Aviation Institute, 1956. Ph.D. Engineering Sciences, Kazan Aviation Institute, 1960. Post Ph.D.

Studies, Moscow State University, 1964. Doctor of Sciences: Physical- Mathematical Sciences, Institute of Mechanics of USSR Academy of Sciences, Moscow, 1968.

**Sciences Specialization:**

Mechanical Engineering; Differential Equations; Stability Theory and its Applications; Control Theory of Interconnected Nonlinear Systems; Nonlinear Dynamical Analysis and its Applications; Theory of Artificial Intelligence and Software; Modelling of Industrial and Social-Ecology-Economic Systems; Analysis of Sustainable Development of the World and Regions; Dynamics of Controlled Space Systems; Spacecrafts and hiroscopic systems.

**Academic Experience:**

Director of Stability and Nonlinear Dynamics Research Center of MERI of RAS. 1996–to present. (Moscow); President of Academy of Nonlinear Sciences 1995–to present (Moscow); Full Professor and Chairman of Cybernetics Department, 1972–1975; Professor of Mathematics and Chairman of Mathematics Department, Kazan Aviation Institute, 1967–1972...

**Honors and Awards:**

USSR State Orders of Peoples Friendship, Badge of Honor,; USSR State Prize in Science & Technology.

**Scientific Societies:**

Academician of Russian Academy of Sciences, 1991; Academician of USSR Academy of Sciences, 1987; Honory Member of Astronautic Academy, 1996; Mamber of Academy of Nonlinear Sciences, 1995

Real Member of Academy of Social Sciences, 1994; Real Member of Ecological Academy, 1995

Member of International Federation on Nonlinear Analysts, 1992; Member of IMACS; Member of Russian Society on Automatic Control.

**Professional Activities:**

Chairman of Russian Branch of IFNA, Editor of Advanced Series in Mathematical and Engineering sciences of World Federation Publishers Company; Member of Editorial Boards of International Journals :

Nonlinear World, Journal Applied Mathematics and Stochastic Analysis; Differential and Integral Equations; Journal of Computer and System Sciences International; Dynamics of Continuous, Discrete and Impulsive Systems; Nonlinear Studies; Problems of Nonlinear Analysis in Engineering Systems

and others. Editor of IMACS Annals on Computing and Applied Mathematics; Vol. 8: The Lyapunov Functions Method and Applications, J.C. ...

**Graduated level experience**

Ph.D. degree supervised: 20

Doctor science consultancy: 3

**Chairman of International Program Committee and principal organizer of:**

International Conference on Stability and Control of Transforming Nonlinear Systems, Moscow, June, 1995

Three International UNESCO-IFNA-RAS Workshops, Moscow, 1991, 1992, Almaty, 1993

International Conference on Nonlinear Dynamics, Irkutsk, 1990

International School on Lyapunov Methods and Applications, Irkutsk, 1989

Three all Union Conferences on Stability Theory and Qualitative Theory of Differential Equations, Irkutsk, 1976, 1982, 1986

Five all Union Sciences School on Lyapunov Functions and their Applications, 1979–1991

Five all Union Sciences School on Applied Software Packages, Irkutsk, 1978–1990.

**Invited Lectures in:**

First World Congress of Nonlinear Analysts, USA, 1992

Second World Congress of Nonlinear Analysts, Greece, 1996

CESA'96 IMACS Multiconference, Lille, France, 1996

IEEE International Conference on Systems^ Man and Cybernetics Le Touquet, France 1993

24 International Conferences and Symposiums. 1970–1994

11 Universities and Institutes of Technology in USA, 1990, 1994

6 Universities and Institutes of Technology in India, 1985, 1987

3 Universities and Institute of Transport in France, 1990–1993

3 Universities in Italy, 1970, 1978, 1992

2 Departments of UNESCO, France, 1991, 1992.

**Contract works:**

1. Dynamics and Control of stratosphere and orbital astronomical observatories, 1965–1975. Kazan Aviation Institute and Kazan Optic-Mechanic Factory.

2. Dynamics and Control of Large Scale orbital stations, 1975–1980, Siberian Energy Institute of USSR Academy of Sciences, Scientific-factory United "Energy". and others before 1996

Total number of contract works more than 32.

**Grants and Projects:**

1. Complex of Software Packages and Project "Hevrolog" of Large Scale System of Logical Inference and Search of Problems Solving for Mathematical Modelling, Nonlinear Dynamics and Control, 1978–1991, Irkutsk Computing Center of USSR Academy of Sciencis, USSR State Committee of Science and Technology.
2. Creating of Self-Organizing Men Machine System for Statement and Formalization of the Problems of Optimization Fuel-Energetic Complexis. 1975–1980, Syberian Energy Institute of USSR Academy
3. of Sciencis, USSR State Committee of Science and Technology.
4. Models, methods ans software for analisys of global and regional sustainable development. 1991–1994. UNESCO, RAS.
5. On the Solution of Differential Equations for the Dynamics of Mechanical Systems with Sliding Friction. 1993–1995, Russian Faund of Fundamentall Researches.
6. Stability and other dynamical properties of Logical Dynamical Systems Russian Faund of Fundamentall Researches, 1996.

**Publications:***Monographs:*

1. Comparison Method in Mathematical System Theory, Novosibirsk, Science, 1980.
2. Algorithms of Derivation of Theorems for Vector Lyapunov Function Method, Novosibirsk, Science, 1981.
3. Vector Lyapunov Function Method in Stability Theory, Moscow Science, 1987; World Federation Publisher Company USA 1996.
4. Modeling of Social Economic Regional Systems, Novosibirsk, Science, 1989.
5. Vector Lyapunov Functions and Stability Analysis of Nonlinear Systems, Dordrecht/Boston/London, Kluwer Academic Publishers, 1991.
6. Lecture Notes on Methods of Nonlinear Dynamical Analysis, Singapore, World Scientific (in appier).

*Papers:*

On the theory of differential equations, appeared in dynamics of systems with friction I,II. Differential Equations 1996.

Nonlinear Methods and software for Dynamic Investigations of Fail-Safe Gyromoment Atitude Control Systems of Satellites, First International conference of nonlinear problems in aivation and

Aerospase 1996, Proceedings, (in appiar).

On Military Strategic Euilibrium of Multipole World, Doklady RAS 1996, vol 346, n 2, p.172–175.

On Stable Dynamic of Strategic Weapons of Multipole World Doklady RAS 1996, vol 346, n 4, p.462–464.

Nonlinear Analysis of Dynamics and Control of Large-Scale Systems with Distributed Parameters.//Preprints of Internat. Symp. of

Control of Distrib. Param. Syst., Perpinjan, France, 1989; Journal "Diff. Equat.", Minsk, 1990, v. 26, N 11, pp.1843–1859.

Vector Lyapunov Function Method in Nonlinear Mechanics. //Advance in Mechanics, 1989, v. 12, N 3, pp. 59–82.

Mathematical Modelling in Mashinary. Journal "Problems of Mashinary" (Russian Acad.Sci.), 1990, v. 1,N 2, pp. 5–30.

The System Evrolog: Application of Logic Synthesis of Programms in Some Problems of

Computer Aided Modelling and Investigation of Interconnected Dynamical Systems.// Math. Modelling and Applied Mathematics. Elsevier Sci. Publ. (North Holland), IMACS, 1992, pp. 447–555.

Models, Methods and Software for Analysis of Global and Regional Sustainable Development: Concepts of International Project, Collection of Sci. Rep. (Edit.V.M.Matrosov) of Internat.UNESCO-RAS, Conference, Moscow, 1991, pp. 3–43.

Models, Methods and Informational Technology of Unstable Development Analysis. In: Analysis of Development Instability on the Base of Mathematical Modelling (Edit. V.M.Matrosov), Preprints of UNESCO-IFNA-RAS International Workshop, Moscow, 1993.

Development of A.M.Lyapunov Ideas for the Hundred Years:1892–1992, Izvestia of University, Mathematics, 4(371), 1993, pp. 3–26.

On the Solution of Differential Equations for the Dynamics of Mechanical Systems with Sliding Friction, Doklady of RAS, 1994, 336(1) pp. 57–60.

Solvability of Equations of Motions of Mechanical Systems with Sliding Friction, Applied Mathematics and Mechanics, 58(6), 1994, pp. 3–13.

and others.

General Number of papers in refered journals (with co-authors) –74

Number of communications to Scientific Conferences – 42