International Research Center on
MATHEMATICS AND MECHANICS OF COMPLEX SYSTEMS

and

FONDAZIONE TULLIO LEVI CIVITA

ALEXANDER P. SEYRANIAN

Alexander P. Seyranian is the author of more than 150 papers, 5 books and 2 lecture notes. He made an important contribution to stability theory, mechanics of solids, structural optimization, analytical and numerical methods of mathematical physics with applications to mechanical systems. His works got wide international recognition. Among his oustanding scientific achievements one can list: the analytical solution of Lagrange's problem on a shape of optimal column; solution to the Keldysh problem on flutter of a wing with bracing strut; solutions to classical problems on stability of a swing and stable rotations of a hula-hoop; contribution to understanding the paradox of Nicolai and destabilization paradox of non-conservative systems by small damping; new solutions for the Chelomei problem; important contribution to stability theory of periodic systems.

A.P.Seyranian was born in 1947 in Moscow, and spent his childhood in Armenia. In 1971 he graduated from the Moscow Physical-Technical Institute. In 1977 he got Ph.D. degree from the Academy of Sciences of the USSR with the thesis "Structural optimization under severa constraints". In 1977-1991 he was a Member of Scientific Staff at the Institute of Problems in Mechanics of the Academy of Sciences in Moscow. In 1988 he got D.Sc. degree with the thesis "Sensitivity analysis and optimization for problems of stability and vibrations of elastic systems" from the Academy of Sciences of the USSR in Moscow. In 1991-1992 he worked in Denmark as a Guest Professor and gave the lecture course "Vibrations and Stability of Systems Depending on Parameters" at the Technical University of Denmark (Lyngby) and Aalborg University. Since 1993 A.P.Seyranian is a Leading Researcher and Professor of the Institute of Mechanics, Moscow State Lomonosov University. In 1995 he was elected a Member of The New York Academy of Sciences. In 1998 he became a Member of Editorial Board of the International Journal "Theoretical and Applied Mechanics" published in Yugoslavia. In 2001 A.P.Seyranian was Coordinator and Lecturer of the course "Stability of Structures. Modern Problems and Unconventional Solutions", held in International Centre for Mechanical Sciences in Udine (Italy), and Editor of the book "Modern problems of Structural Stability", 2002, Springer Wien. In 2002 he got the prize of Elsevier Publishers for the best paper published in Journal of Applied

Mathematics and Mechanics in 2001. In 2003 he wrote a fundamental monograph on multi-parameter stability problems (with A.A.Mailybaev) published by World Scientific which got very positive response in the scientific press. In 2003 A.P.Seyranian became a member of Editorial Board of International Journal of Structural and Multidisciplinary Optimization. In 2007 A.P.Seyranian as a leader of Moscow group with the partners from Italy, France and Siberia got approval of the INTAS project “Advances of Stability Theory with Mechanical Applications” supported by European Union. In 2007 A.P.Seyranian became a member of Editorial board of the International Journal “Mathematical Methods in Engineering”. In November 2008 he was elected a Member of Academy of Sciences of Armenia, and became a member of Editorial board of the journal “Mechanics” published in Yerevan. In 2010 he was elected a Full Member of Russian Academy of Natural Sciences. In 2010 A.P.Seyranian gave the modern stability courses in Brazil and China and published with A.A.Mailybaev a new book “Multiparameter Stability Problems. Theory and Applications in Mechanics”, Fizmatlit, Moscow in Russian. In 2010 A.P.Seyranian became a member of Editorial board of the journal “Mathematics and Mechanics of Complex Systems” published in Italy. In 2011 he was an Invited speaker in the Congress of Serbian Society of Mechanics in Vlasina Lake (Serbia) and Plenary Speaker in the Conference “Physics and Control – 2011” held in Leon (Spain).

A.P.Seyranian is a reviewer of ASME Journal of Applied Mechanics, American Mathematical Society, Proc. Royal Society (UK), Journal of Sound and Vibration, International Journal of Non-Linear Mechanics, European Journal of Mechanics, International Journal of Solids and Structures, Structural and Multidisciplinary Optimization, Acta Meccanica, Theoretical and Applied Mechanics, ZAMM, Journal of Applied Mathematics and Mechanics, Doklady of Academy of Sciences, Mechanics of Solids. He was also invited to serve as an expert for State Science Committees and Foundations in Russia, Serbia and China. A.P.Seyranian gave lectures and presented seminars in many Conferences and prominent Universities in Russia, Armenia, USA, Canada, UK, Germany, France, Japan, Austria, Brazil, Italy, Spain, Serbia, Romania, Ukraine, Bulgaria, China, Denmark, Netherlands, Korea, Poland, Sweden, Hungary, Slovakia, Turkey. His biography is included in the reference books ”Who is Who in the World”, Marquis, 1999 and 2001, “Who is Who in Science and Engineering”, Marquis, 2007 and “Famous Armenians”, Biographical Center, Marseille, France, 2008.

The committee, entrusted by the
“Fondazione Levi-Civita”

and the Scientific Committee of the
International Research Center MEMOCS

with the responsibility of awarding the
International Levi-Civita Prize

unanimously propose Professor Alexander Seyranian as winner of the 2012