FARAMAZ GAZANFAR oglu MAKSUDOV

(FOR THE 70th ANNIVERSARY)

Faramaz Gazanfar oglu Maksudov was born in 1930, 20 March in Nakhchivan-city of Azerbaijan Republic. After graduate from the Azerbaijan State University Maksudov F.G. was recommended for research work and since that time all his creative activity has continuously connected with Azerbaijan Academy of Sciences where he has passed the way from an aspirant to President of Academy, from a young perspective spesialist to the outstanding scientist, a great specialist in the field of functional analysis, theory of differential equations and mathematical problems of Mechanics of Continual Medium.

Already the first work by Maksudov F.G. referring to the middle of 50-th years, contain a series of the important results on discreteness of spectrum and on completeness of the system of eigen and joint functions of Shrödinger onedimensional operator with the complexvalue potential for which particularly for the first time the criterion of discreteness of the spectrum was suggested. He obtained the deep results on structure of the spectrum of singular non-selfconjugate ordinary differential operators of any even order, the rather complete spectral analysis of Shturm-Liouville operator on the semi-axis with complex for the boundary condition in zero containing the spectral parameter.

The large cycle of works by Maksudov F.G. was devoted to investigation of Dirac's onedimensional system for which he solved the inverse problem on reconstruction of the operator by the scattering matrix in the case of real coefficients, it was proved existence of the generalized spectral matrix in the case of complex coefficients, the inverse problem of scattering theory was solved in the case of quickly decreasing complex coefficients, the spectral analysis in the case of periodic coefficients was carried out by him.

In 50-th years after well-known work by Keldish M.V. in the world literature the interesting investigations were begun in the field of spectral theory of operator bundles

which naturally origin for working out of mathematical models of different physical processes. Equally with the serious achievements in the theory of bundles with discrete spectrum there were essential blanks in the spectral theory of operator bundles with an arbitrary structure of the spectrum.

An important step was made by Maksudov F.G, on working out the spectral theory of wide class of operator bundles whose spectrum contain the continuous component. The works in this direction formed the main contain of his doctor dissertation on the theme: "Some problems of spectral theory of polynomial operator bundles for existence of the continuous spectrum" which he defended successfully in 1974.

The investigations in the theory of differential equations draw the wide circle of problems among which it should note the cycle of works devoted to asymptotics of solutions of Shrödinger equation with the variable potential in which the new effective asymptotical formulas were obtained. Here particularly the new thin criteria of absence of positive eigen values of Shrödinger operator with the decreasing potential which are far going generalization of the known Kato criterion. Maksudov F.G. suggested the fine method of investigation of behaviour of solutions of differential operator equations in Hilbert space which gives an opportunity to find out the behaviour of solution of initial boundary value problems for the wide class of evolution equations of the second order, among them, the series of the dynamic problems of theory of elasticity. The investigations by Maksudov F.G. devoted to the problems of global solvability and smoothness of solutions of initial boundary valued problems for non-linear hyperbolic equations of the second and higher orders and also the obtained results by him refering the oneside problems for the non-linear hyperbolic equations were a reason for the series of interesting investigations in this field carried out by his followers. A considerable place among these works the solution of the problem on smoothness of solutions of the non-linear wave equation with dissipation takes which was formulated by Lions J.

In the series of works by Maksudov F.G. devoted to the mathematical problems of Mechanics of Continual Medium the effective methods of solution of dynamical problems of the theory of viscoelasticity were worked out, the questions of global solvability of initial boundary value problems for non-linear equations of the theory of elasticity, magnetelasticity and other connected fields were investigated.

With active participation of Maksudov F.G. the series of essential investigations in the field of mechanics of deformed body and mechanics of liquid and gases was done. Here it should mention the works devoted to study of the process of convection at heat transfer in quazinewtonian fluids, study of laws of dynamical deformation of polarized piezokeramical bodies, to the problem on optimal control regime of cooling of ingot, dynamics of steam gas phials in the viscous non-compressible fluid, problem on fracture of the bielastic medium, problem on lateral oscillations of the twolayer beam. It should also mention the working out of the new methods of solution of the non-stationary problems of the linear viscoelasticity, the new calculation method of the non-homogeneous by thickness anysotrop non-linear elastic shells, the iteration method of solution of the system of the non-linear integral differential equations, modeling the displacement process of the oil from the seam by the micellar mixture. Many of these works put the beginning of further investigations in these directions.

In 1976 Maksudov F.G. was elected the correspondent- member, and in 1980 the Full member of the Academy of Sciences of Azerbaijan. Since 1974 Maksudov F.G. has been at the head of Institute of Mathematics and Mechanics, from 1981 to 1997 he was the academician secretary of the Department Physical, Technical and Mathematical Sciences. Since 1997 Maksudov F.G. has been President of Academy of Sciences of Azerbaijan. Maksudov F.G. much forces and organization skills attends to widening of scientific connections of the Institutes of the Academy with the leading scientific centers

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in UIS and abroad, to the development of new directions of science, improvement of structures of institutes, solving of the applied problems important for the economy of our Republic.

For many years Maksudov F.G. has been at the head of the Institute of Mathematics and Mechanics of AS of Azerbaijan and for these years the Institute has got great successes. Most of the investigations in such traditional for Azerbaijan fields of Mathematics as functional analysis, theory of differential equations and theory of functions refer to the high class. The institute managed to make a large jump in the field of Mechanics of Continual Medium. For comparatively short time at the Institute the strong creative collective of mechanics was formed in which active particularly The Prize of Soviet of Ministers of USSR 1983 for the working out of the calculation methods on the strength of the large energetic equipments. F.G. Maksudov was the leader of this work.

All his life Maksudov F.G. has been dealt with scientific youth whom he pays much time and attention. With his scientific supervisor more than 70 candidate and doctor dissertations were defended. He is the author of more than 300 scientific works and the series of monographs and textbooks. Many of F.G. Maksudov's pupils work at High Schools and Scientific Research Institutes in Azerbaijan, in the Union of Independent States and foreign countries (Turkey, Iran, Germany, USA and others).

Faramaz Gazanfar oglu Maksudov has high human qualities. He combined the known sides of his character such as mild, affability, and readiness to come to help in trouble and firmness and resolution in principal matters.

His interests go out far from the limits of mathematics and mechanics. He is a deep judge very good and at art, poetry and music. He is known as a politician, the deputy of the Parliament of Azerbaijan Republic (Milly Mejlis) and an active participant in many TV programmes devoted to the problems of science and art.

Gadjiev A.D., Mamedov I.T.