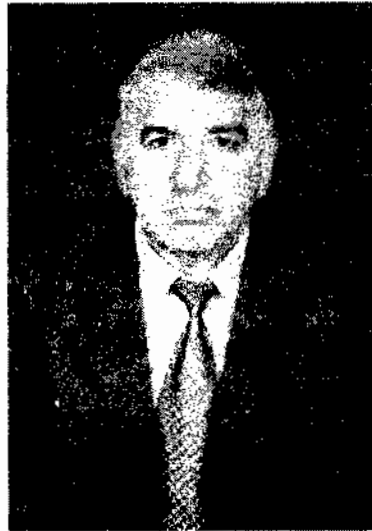


HUSEYNOV HIDAYAT MAHAMMAD oglu
(to the 50th anniversary)



In January 20, 2001, doctor of physico-mathematical sciences, professor of the applied mathematical chief of Baku State University Huseynov Hidayat Mahammad oglu was 50.

H.M. Huseynov was born in the village Agtakla of Gardaban region of Georgia. There he finished secondary school. In 1968 he entered the mechanico-mathematical faculty of Azerbaijan State University. Then in 1973 he joined the post-graduate courses of the Institute of Mathematics and Mechanics (IMM) of AS of Azerbaijan. Till 1990 he has worked at IMM from a post-graduate student up to senior research associate. From 1990 up to day he works at the applied mathematics chief of the applied mathematics and cybernetics faculty of Baku State University.

Scientific interests of H.M. Huseynov are in the theory of inverse problems of spectral analysis for ordinary differential equations, a system of differential and difference equations, and some units of spectral theory of operators and their applications. He is a prominent representative of Azerbaijan mathematicians in these fields and one of light representatives of academician M.G. Gasymov's school.

In his first works H.I. Huseynov was engaged with the generalization of the results of his supervisor on the investigation of inverse problems for the system of Dirac equations. He has solved the inverse problem of scattering theory for the multichannel system of Dirac equations. By solving it he derived a transformation operator and Levinson type formula [1]-[3]. In 1978 H.I. Huseynov successfully defended his candidate dissertation [5].

The theory of inverse scattering problems was sufficiently studied for one-dimensional self-adjoint Schrodinger operator with a real potential $q(x)$, satisfying the condition $(1 + |x|)q(x) \in L_1(-\infty, \infty)$. But the problem of this theory on finding sufficient and necessary conditions to which some function should satisfy for this function to be a coefficient of the mapping, remained open. The previously known conditions were bulky and were difficult to verify, and a mapping coefficient in zero was assumed to be continuous. H.M. Huseynov proved its continuity [9]. This admitted to simplify the formulation of the condition of the known theorem by academician L.D. Faddeyev, and its results were used in mathematicians works in clearing up the behaviour of the scattering data.

H.M. Huseynov made a valuable contribution to the solution of the inverse problems for the higher order ordinary differential operators and polynomial bundle of Sturm-Liouville's operators. For solving higher order equations he found new type integral representations, investigated their kernels in detail, and derived integral equations admitting to solve the inverse scattering problems [11], [21], [27]-[29], [33], [36]. To describe the properties of the representation kernels for lost solutions he used fractional integration operators and fractional differentiation by Rittmann-Liouville. By this method H.M. Huseynov obtained differential representations for lost's solutions, in particular Schrodinger equations with a potential that polynomially depends on the spectral parameter [18], [19], [24], [27], [28], [30]. These results are on the basis of H.M. Huseynov's doctoral dissertation [32] which he defended in 1988. Reviewing his doctoral dissertation, acad. V.A. Marchenko estimated H.M. Huseynov as a scientist of outstanding talent of mathematician-analyst capable to investigate and solve difficult problems.

H.M. Huseynov works obtained in collaboration with M.G. Gasymov, I.M. Nabiyev and R.T. Pashayev on the solution of Sturm-Liouville's inverse problems with undivided boundary conditions on the description of selfadjoint extensions of the even order differential operators, transformation operator for integral differential equations, representations for solving equations with disconnected coefficients, the asymptotics for eigenvalues of Sturm-Liouville's polynomial bundle and others [7], [10], [15], [20], [37], [43] are worth of our attention.

H.M. Huseynov puts actual and rich in content problems before his students. Together with his followers he solved the inverse scattering problem for a system of difference equations, the inverse problem for Sturm-Liouville's operator with undivided boundary conditions, different variants of the inverse problems for Dirac's operator. The methods of the inverse problems have been applied to the solution of nonlinear equations of mathematical physics, the asymptotics of the solution of Cauchy problem for Todd's chain with initial data of step type- and other interesting problems were considered [8], [12]-[14], [17], [20], [22], [23], [31], [35], [40]-[42].

He is an author of 45 scientific papers. A part of them have been published in authoritative journals of former Soviet Union, Russia (DAN SSSR, "Matematicheskiy sbornik", "Matematicheskiye zametki", "Functional Analysis and its applications", "Sibirskiy matematicheskiy zhurnal", "Differentsialniye uravneniya", "Teoreticheskaya i matematicheskaya fizika") and abroad (full list of scientific papers is in journal "Vestnik BSU", ser. of phys.-math.sc., 2000, №4, p.202-207).

He is a participant of several international conferences on mathematics. He was a supervisor of 5 candidates of sciences.

Professor H.M. Huseynov is a beautiful teacher, talented scientist, patriot, a man of principal character that is worth of respect by his colleges and students.

We congratulate professor H.M. Huseynov on his jubilee, and wish him creative longevity, happiness and prosperity.

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