



Mikheil Basheleishvili's 80th Birthday Anniversary

The well-known Georgian mathematician and mechanician Mikheil Basheleishvili is eighty years of age.

Mikheil Basheleishvili was born on January 15, 1929 in the village Bashi in Georgia. In 1945 he entered the faculty of Physics and Mathematics of Tbilisi State University, from which he graduated in 1950.

In 1950–1953 he was a post-graduate student of the Tbilisi State University. He carried out his Candidate's research under the supervision of Academician Victor Kupradze, an outstanding Georgian mathematician with worldwide recognition.

In 1953 he defended his Candidate thesis "The boundary value problems of steady state elastic oscillation".

In 1953–1956 M. Basheleishvili was a dean and an associated professor at the Telavi Pedagogical Institute.

In 1956 M. Basheleishvili returned to Tbilisi where he was an associated professor at the Tbilisi State University.

1958–1965 he was a senior researcher of Computation Centre of the Academy of Sciences of Georgia.

From 1965 to 1967 he worked at the A. Razmadze Mathematical Institute of the Georgian Academy of Sciences as a senior researcher.

Since 1967 M. Basheleishvili has been working at the I. Vekua Institute of Applied Mathematics of Tbilisi State University.

Since 1973 he has been heading the Department of Elasticity Theory.

In 1967 M. Basheleishvili defended his Doctor Thesis "Boundary value problems of elasticity theory for plane anisotropic bodies and bending of thin anisotropic plates for homogeneous and non-homogeneous domains".

In 1982–1992 he was a professor at the Georgian Technical University.

In 1971 he became the winner of the State Prize of Georgia in science and technology.

In 1979 M. Basheleishvili won the Iv. Javakhishvili Medal of Tbilisi State University. In 1985 M. Basheleishvili received the title of Honored Scientist and in 1999 he won N. Muskhelishvili Prize of the Georgian Academy of Sciences.

M. Basheleishvili is an acknowledged researcher in the field of elasticity. He is the author of over 100 scientific works and five monographs. Here we cite only two of them.

“Three Dimensional Boundary Value problems of the Mathematical Theory of Elasticity and Thermoelasticity”, *Nauka, Moscow*, 1976 (jointly with V. Kupradze, T. Gegelia, T. Burchuladze). In 1979 this monograph was published in English in Holland. The monograph became a companion desk book for specialists working in this field.

“Two-Dimensional Problems of Elasticity of Anisotropic Bodies”, *Mem. Differ. Equation Math. Phys.*, vol. 16. Tbilisi, 1999. This work is devoted to the systematical application of the potential method and the theory of integral equations to the two-dimensional problems of statics of anisotropic elastic bodies.

Professor M. Basheleishvili’s main scientific fields are the theory of differential and integral equations, problems of mathematical physics and the theory of elasticity.

M. Basheleishvili investigated two-dimensional boundary and boundary-contact value problems of the theory of elasticity and bending of thin anisotropic plates. He obtained the second kind Fredholm type integral equations for the basic boundary value problems of elasticity of homogeneous anisotropic bodies by using the potential method and proved the uniqueness and existence theorems. With the help of these Fredholm type equations, he constructed explicit solutions for an ellipse, for an infinite plane with an elliptic hole and for the half-plane. He obtained and investigated singular integral equations with discontinuous coefficients corresponding to the case of mixed boundary value problems.

M. Basheleishvili investigated two-dimensional boundary value problems of statics of elastic mixtures. Using the potential method and the theory of singular integral equations, he proved existence and uniqueness theorems. He formulated the generalized Cauchy–Riemann type conditions in the two-dimensional theory of elastic mixtures and obtained Poincaré–Beltrami type formulas.

We wish Professor Basheleishvili good health, long life and further success in the scientific activity.

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