

## VICTOR KUPRADZE'S 100TH BIRTHDAY ANNIVERSARY

100 years have passed since the birthday of the outstanding Georgian scientist, popular statesman and public figure, academician Victor Kupradze. Academician Victor Kupradze made a tremendous contribution to the theory of differential and integral equations, problems of mathematical physics, the theory of elasticity and applied mathematics.

Victor Kupradze was born on 2 November 1903 in village Kela in Georgia.

In 1922 Kupradze became a student of the physical and mathematical faculty of the Tbilisi State University.

In 1927 he graduated from the University and as nominee of professors A. Razmadze and N. Muskhelishvili, founders of the worldwide known Georgian mathematical school, was left at the University to be prepared for research work.

In 1930-1933 he was a post-graduate student at the Academy of Sciences of the USSR in Leningrad (St. Petersburg), where his supervisors were the prominent Russian scientists A. Krilov and V. Smirnov.

In the period from 1933 to 1935 Kupradze worked as the scientific secretary of V.A. Steklov Mathematical Institute in Leningrad.

In 1935 he defended his doctor's thesis: "Boundary Value Problems of the Electromagnetic Wave Theory".

In the same year Kupradze returned to Tbilisi where he was appointed director of the Tbilisi Mathematical Institute.

During the World War II V. Kupradze served in the Soviet Army, participated in the cruel battles for Crimean Peninsula. In 1943 he was demobilized and appointed pro-rector of the Tbilisi State University, responsible for research work.

From 1944 to 1953 Kupradze was a Minister of Education of Georgia.

In 1946 he was elected full member of the Academy of Sciences of Georgia.

In 1954-1958 he held a position of a rector of the Tbilisi State University.

In 1962 the Georgian Mathematical Society was founded and V. Kupradze was elected its first president.

In 1963 Kupradze was elected academician-secretary of the department of mathematics and physics of the Academy of Sciences of Georgia, where he worked fruitfully till 1981. At the same time he headed the chair of differential and integral equations of the Tbilisi State University. From 1947 to 1985 Kupradze was a member of Presidium of the Georgian Academy of Sciences.

V. Kupradze widely participated also in the public life of Georgia and the former USSR. In 1947 he took part in the Congress of Asiatic and African Peoples held in Delhi. From 1954 to 1963 he was Chairman of the Supreme Soviet (Parliament) of Georgia. In 1955 he was sent to the USA (New York) as a Soviet delegate to the 10th Session of the UN General Assembly.

V. Kupradze actively was involved in the international scientific co-operation. Being member of various reputable organizations such as the National Committee of Soviet Mathematicians, National Committee on Theoretical and Applied Mathematics, Bureau of the Scientific Council on Plasticity and Strength of the Academy of Sciences of the USSR, also member of the presidium of the international society "Mathematical Methods in Mechanics" V. Kupradze played a significant role in strengthening scientific contacts between the scientists of different countries. He was a member of the editorial boards of domestic and international scientific journals, including "Uspekhi Matematicheskikh Nauk", "Differentsial'nie Uravneniya", "Journal of Thermal Stresses", etc.

V. Kupradze passed away on 25 April 1985.

The mathematical inheritance of V. Kupradze is very rich. His contributions to mathematics and mechanics deal with

1. Problems related to the justification of Sommerfeld's Radiation Conditions and boundary value problems (BVP) for the Helmholtz equation
2. Diffraction and scattering of electro-magnetic waves
3. Mathematical problems of the theory of elasticity (BVPs of statics and steady state oscillations, and initial boundary value problems of general dynamics)
4. Theory of one- and multi-dimensional singular integral equations and their applications
5. Investigation of refined models of the theory of elasticity and thermoelasticity
6. Problems of numerical simulation and approximate solutions of BVPs of mathematical physics.

It should be mentioned that the fundamental work (with T. G. Gegelia, M. O. Bacheleishvili, T. V. Burchuladze) "Three-dimensional Problems of the Mathematical Theory of Elasticity and Thermoelasticity" (North-Holland Publ. Comp., Amsterdam, 1979) became a companion desk book

for scientists working in the field. The first Russian edition of the book (Published in Tbilisi in 1968) has been devoted to the 50th anniversary of the Tbilisi State University and was awarded the State Prize of Georgia in 1971.

The methods developed by V. Kupradze widely and successfully are applied to many theoretical and practical spheres of mathematical physics and engineering even nowadays.

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*Monographs written by V. D. Kupradze*

1. *Basic Problems of the Mathematical Theory of Diffraction (Stationary processes)*. (Russian) L.-M., Central Publishing Company of Technical Literature (1935), pp. 111.
2. *Boundary Value Problems of the Oscillation Theory and Integral Equations*. (Russian) M.-L., State Publishing House of Technical and Theoretical Literature (1950), pp. 280.
3. *Fundamental Problems in the Mathematical Theory of Diffraction*. Los Angeles (1952).
4. *Randwertaufgaben der Schwingungstheorie und Integralgleichungen*. (German) Berlin, VEB Deutscher Verlag der Wissenschaften (1956), pp. 239.
5. *Methods of a Potential in the Theory of Elasticity*. (Russian) M., Fizmatgiz (1963), pp. 472.
6. *Dynamical Problems in Elasticity*. North-Holland Publ. Comp., Amsterdam, 1963, pp. 259. (N. Sneddon and R. Hill Editors. Progress in Solid Mechanics, v. 111).
7. *Potential Methods in the Theory of Elasticity*. Israel Program of Scientific Translations, Jerusalem, **9** (1965), pp. 340.
8. *Metody Teorii Potencjalu w Teorii Sprezystosci*. Zaklad Narodowy Imienia Ossolinskich Wydawnictwo. Polskiej Akademii Nauk, Wroclaw-Warszawa-Krakow (1966), pp. 203.
9. *Three-dimensional Problems of the Mathematical Theory of Elasticity and Thermoelasticity*. (Russian) Tbilisi, Gos. Universitet (1968), pp. 627 (with T. G. Gegelia, M. O. Basheleishvili, T. V. Burchuladze)

10. *Wybrane Zagadnienia Teorii Sprężystości i Termosprężystości*. Zakład Narodowy Imienia Ossolińskich Wydawnictwo. Polskiej Akademii Nauk, Wrocław-Warszawa-Kraków (1970), pp. 348.
11. *Lectures in Modern Problems of the Mathematical Theory of Elasticity*. Tbilisi University Press, Tbilisi (1974), pp. 116.
12. *The Dynamical Problems of the Theory of Elasticity and Thermoelasticity*. (Russian) Current Problems in Mathematics. Moscow, **7** (1975), pp. 132 (with T. V. Burchuladze)
13. *Three-dimensional Problems of the Mathematical Theory of Elasticity and Thermoelasticity*. (Russian) Moscow, Nauka (1976), pp. 663 (with T. G. Gegelia, M. O. Basheleishvili, T. V. Burchuladze)
14. *Three-dimensional Problems of the Mathematical Theory of Elasticity and Thermoelasticity*. North-Holland Publ. Comp., Amsterdam (1979), pp. 929 (with T. G. Gegelia, M. O. Basheleishvili, T. V. Burchuladze)