

Obituary

VLADIMIR IVANOVICH MOSSAKOVSKII  
(27.8.1919–13.7.2006)<sup>☆</sup>



On 13 July 2006, in his 87th year, the eminent specialist in mechanics, Doctor of Physicomathematical Sciences, Professor Vladimir Ivanovich Mossakovskii passed away after a long illness. Mossakovskii was a member of the Ukrainian Academy of Sciences, a talented teacher and a brilliant organizer of higher education and science. He was an Honoured Scientist of the Ukraine, a Hero of Socialist Labour, the holder of two Orders of Lenin, an order of Prince Yaroslav Mudryi, fifth grade, and other high State awards, a winner of the State Prize of the USSR and the Prize of the Soviet of Ministers of the USSR, the Personality of the Year 2000 according to the International Bibliographical Institute (Cambridge, UK) and an Honoured Citizen of Dnepropetrovsk.

Professor Mossakovskii made a considerable contribution to the development of a number of fundamental specializations in the mechanics of deformable solids. Results he obtained in the mathematical theory of elasticity, in the crack theory, in the mechanics of brittle fracture and in the statics and dynamics of thin-walled structures are widely known. He was the first, to solve in an accurate formulation, mixed problems of elasticity theory for a half-space with a circular line of division of the boundary conditions, the problem for a space with a plane circular cut and a number of contact problems with a changeable contact area, and he obtained new results in the theory of analytical functions and integral transformations, and in the analytical theory of differential equations. He proposed effective approaches to investigating contact problems for non-circular (in plan) punches under fairly general conditions of interaction with

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<sup>☆</sup> *Prikl. Mat. Mekh.* Vol. 71, No. 3, pp. 526–527, 2007.

an elastic medium, and also algorithms for solving differential Fuchs-class equations to which complex problems of elasticity theory reduce. Under his supervision, and with his participation, unique procedures were developed for designing the structural components of space rocket technology.

He was the author of seven monographs and over 250 scientific papers. Under his supervision, 11 Doctoral and 47 Master's dissertations were defended.

He was born on 27 August 1919 in Melitopol (Zaporozh'ye region). After finishing middle school with a gold medal, he entered the Physicomathematical Faculty of Dnepropetrovsk University. He was soon conscripted into the Red Army, and reached Berlin. For his war services he was awarded the order of the Red Star and medals.

After returning from the war, he graduated from University with distinction, after only 2 years of postgraduate studies defended his Master's dissertation and after 4 years (1956), as a doctoral candidate at the Institute of Mechanics of the USSR Academy of Sciences, defended his doctoral dissertation on "Some three-dimensional contact problems of elasticity theory".

His research style of was notable for the use of a fine body of mathematics and deep insight into the physical essence of problems. He was an advocate of the wide use of experimental and calculation methods for substantiating working hypotheses and checking results. He initiated the creation of new optical-interference methods of investigation which made it possible to obtain a series of important experimental results in the area of the statics and dynamics of inhomogeneous thin-walled structures and contact interaction of solids.

Along with his scientific work, he paid much attention to organizational and teaching activity. He was a founder (1953), and for over 35 years head, of the Faculty of Aeromechanics and Elasticity Theory (now the Faculty of Computer Mechanics and the Strength of Structures) of Dnepropetrovsk University. It was in many ways owing to his teaching and organizational activity in Dnepropetrovsk that the well-known scientific school in the area of the mechanics of deformable solids was formed.

He was the initiator and chairman of scientific conferences and symposia and the manager of authoritative scientific seminars, he was head of editorial boards of scientific publishing houses, and for over 30 years he took part in the publication of the journal *Prikladnaya Matematika i Mekhanika*.

An acknowledgement of his scientific authority was his election in 1967 as a Corresponding Member and in 1972 as a Full Member of the Ukrainian Academy of Sciences. He was a member of the national committees of the Ukraine and Russia on theoretical and applied mechanics, and for many years directed the Scientific Council of the Ukrainian Academy of Sciences for the Dnieper region on the problem of "Cybernetics".

He made a considerable contribution to the development of Dnepropetrovsk University, where he was the rector for 22 years. During this time, the University became one of the leading higher educational establishments of the Ukraine.

He was a many-sided creative personality. A talented scientist – mathematician and specialist in mechanics – he was also a cultured man in the highest sense of this term. He could speak many foreign languages, was an expert in history and literature, loved music and sport and was a good chess player. For his students, he was a friendly and wise mentor. A broad erudition, a fine perception of the new and promising, a talent as a researcher and organiser, adherence to principles and exacting standards, combined with an ability to create, within a team, an ethos of scientific creativity, were characteristic of him throughout his life.

His death is a great loss to the scientific community. An eminent scientist and teacher and a wise and intelligent man has passed away. He will always be fondly remembered by his many comrades-in-arms and students.

*Translated by P.S.C.*