## Tribute to Professor Lazar M. Kachanov on his 75th Birthday



All over the world, the last several generations of students and researchers in the area of solid mechanics discovered the name of Prof. Lazar Kachanov as soon as they delved into the esoteric realm of inelastic phenomena. Currently a resident of Boston, Lazar Kachanov is celebrating his 75th birthday this year.

In his long career, he published more than his share of pioneering works on virtually every topic in solid mechanics, such as elastic stability, creep phenomena, plasticity, and mechanics of laminated media (see list of Major Publications). Many of these works are now considered classic. His first book on plasticity, *Fundamentals of Plasticity*, was published in 1948. He is best known for his second book, *Foundations of the Theory of Plasticity*, which first appeared in 1956 and has since been translated into many languages. He is one of the founders of modern damage mechanics, having established the fundamental equation (which bears his name) and methods of solving boundary-value problems in damaged media.

Dr Kachanov was born in 1914, in turbulent pre-revolution Russia. In 1932, after working as a lathe operator for a year, he entered the College of Physics and Mathematics at Leningrad University. Since then, until his departure from Russia, he has been associated with this university, in roles covering the entire spectrum from undergraduate student to distinguished professor of mechanics. His scientific endeavors were interrupted in 1941 by World War II in which he participated as a Navy artillery officer in defense of Leningrad. After the war he returned to the Department of Elasticity at Leningrad University and ultimately became department head in which capacity he served for 15 years, until his immigration to the United States in 1978.

In the United States, he has continued his academic activities at Brown University, The University of Illinois, The University of Delaware, and Boston University as a Distinguished Visiting Professor. Since 1978 he has written all his new books in English. Still as productive as ever, he published four new books in the last 7 years.

True to his international reputation as an outstanding researcher and educator, he

continues to push forward the leading edge of science in his tireless investigations, and we wish him many more years of creative life.

For his many pupils, colleagues and friends,

A. CHUDNOVSKY, L. PAPERNIK and M. REITMAN.

## **Major Publications**

Mechanics of Plastic Deformations. Gostekhizdat, Moscow, 1948.

Fundamentals of Plasticity. Nauka, Moscow, 1956, 1969. North Holland, Amsterdam, 1971.

Some Problems of Creep. Fizmatgiz, Moscow, 1949.

Theory of Creep. Fizmatgiz, Moscow, 1960.

Fundamentals of Fracture Mechanics. Nauka, Moscow, 1974.

A Brief Course on the Theory of Buckling. The University of Waterloo Press, Waterloo, Canada, 1981.

Buckling of Thin-walled Rods. The University of Waterloo Press, Waterloo, Canada, 1983.

Introduction to Continuum Damage Mechanics. Martinus Nijhoff, Dordrecht, The Netherlands, 1986.

Delamination Buckling of Composite Materials. Kluwer Academic Publishers, Boston-London, 1988.