



Professor Dov I. Shilkrut (1925 – 1998)

Dov Shilkrut and Eduard Riks, Stability of nonlinear shells: On the Example of Spherical Shells, (Google eBook), Elsevier, 2002, 458 pages

See:

<https://www.geni.com/people/Dov-Shilkrut/6000000006708221037>

<http://prabook.com/web/person-view.html?profileId=552811>

<https://translate.google.com/translate?hl=en&sl=ru&u=https://ru.wikipedia.org/wiki/%25D0%25A8%25D0%25B8%25D0%25BB%25D1%258C%25D0%25BA%25D1%2580%25D1%2583%25D1%2582,%25D0%2594%25D0%25B0%25D0%25B2%25D0%25B8%25D0%25B4%25D0%2598%25D1%2581%25D0%25B0%25D0%25B0%25D0%25BA%25D0%25BE%25D0%25B2%25D0%25B8%25D1%2587&prev=search>

Education:

Student, Odessa Institute Shipbuilding, 1946. Graduate mechanics, University Lvov, 1948. Doctor of Philosophy, University Lvov, 1952. Doctor of Technology Science, All Union Institute of Structures, Moscow, 1971

Career:

Teacher mathematics High School, Tchernovitz, Union of the Soviet Socialist Republics, 1949-1952. Assistant dozent Lvov (Union of the Soviet Socialist Republics) Institute Wood, 1952-1959. Dozent, professor Kishinev Polytech. Institute, Union of the Soviet Socialist Republics, 1959-1978. Professor mechanics of deformable system Ben Gurion University of Negev, Beer Sheva, Israel, since 1979. Director Pearlstone Center Aeronautical Studies, Beer Sheva, 1981-1985. Manager Clear-Cut Company, Beer Sheva, since 1991. Consultant in field.

Works:

Author 150 science articles and books. Patentee in field.

In Memoriam (The preface of the book pictured above, by Prof. Nachum Finger, Rector, Ben-Gurion University of the Negev, Beer-Sheva, Israel):

Ben-Gurion University of the Negev was established in the first half of the 1960s with a strong commitment to serve not only as an institution of higher learning, dedicated to the pursuit of scholarship and education, but also to stimulate the economic, social, and cultural development of the entire Negev region. Soon after opening its doors, the university became a magnet for talented scientists from all over the world, and especially for those arriving in Israel with the first wave of immigration from the Soviet Union. Ben-Gurion University was particularly fortunate that, among these scientists, was Professor Dov Shilkrut, whose reputation preceded him. Easily identifying with the pioneering spirit of the university, Professor Shilkrut joined the Faculty of Engineering, soon becoming one of the pillars of the Faculty and of the Department of Mechanical Engineering. He was instrumental in establishing a research group in Mechanics, which is very active in the Department to this very day.

I recently came across a report of Professor Shilkrut's activities during his first year at the university alone, listing a number of publications that had appeared in print, an additional number submitted for publication, as well as an impressive list of papers delivered at scientific conferences and seminars. What a report such as this cannot illuminate, of course, was Dov's personality: his ebullience, his drive, his vivacious and yet no-nonsense approach to everything with which he dealt.

Dov considered this book the culmination of his professional contribution to knowledge to the moment of his death; it is my personal feeling that it is also most fitting for it to serve a partial legacy. A large part of this legacy, however, does not lie in the written word, be it book, journal, or conference abstract. Dov imparted elements of his intellectual spirit to several generations of students, both in the former Soviet Union and in Israel, some of whom, as scientists in their own right, actively pursue his ideas at our university today, as well as in universities, research institutes, and private companies worldwide. Dov dedicated his life to passing on the torch of his ideology, his devotion to science, and his dynamic approach to daily challenges – qualities that are much less tangible than his extensive body of published and unpublished works, but nonetheless genuine. It is an honor to write the preface to this book, although it inevitably saddens me that it is posthumous. I doubt whether it is possible to assess the extent of creative energy lost to the scientific world with Dov Shilkrut's untimely passing.

Selected Publications:

Books:

Dov Shilkrut and Eduard Riks, Stability of nonlinear shells: On the Example of Spherical Shells, (Google eBook), Elsevier, 2002, 458 pages

Monographs:

- Some problems of the nonlinear theory of shells and plates and their solution on a computer. Chisinau: Shtiintsa 1967.
- The solution of problems of nonlinear shell theory on analog computers by direct modeling on a computer by direct information to the Cauchy problem. Chisinau: Shtiintsa 1969.
- Questions qualitative theory of nonlinear shells. Chisinau: Shtiintsa 1974.
- Stability of nonlinear shells. Chisinau: Shtiintsa 1977.
- Dov Shilkrut. Stability of Nonlinear Shells: On the Example of Spherical Shells. Studies in applied mechanics 48. Oxford: Elsevier, 2002. - 496 pp.

Journal Articles:

- DI Shilkrut. The Solution of Nonlinear Problems of the Plate and Shell Theory by the Method of Small-step Loading. Defense Technical Information Center, 1970.
- Shilkrut DI United rheological hypothesis to describe the hysteresis effect of the joint and hereditary (relaxation) effects on oscillatory processes in not quite elastic systems. Energy dissipation during oscillations of elastic systems. Kiev: Publishing Ukrainian Academy of Sciences. 1963. pp 97-111.
- Shilkrut DI A method for the approximate solution of ordinary differential equations (1965)
- Virlan PM, Shilkrut DI On the stability of the equilibrium shapes of geometrically nonlinear spherical shells // Izvestiya. USSR Academy of Sciences. MTT. Number 4. 1978. pp 170-176.
- Shilkrut, D.: Solutions of some stability problems in the theory of geometrically non-linear shells. Israel J. Techn. 18 (1980) 76–83
- Shilkrut D.: Investigation of Axisymmetric Deformation of Geometrically Nonlinear, Rotationally, Orthotropic, Circular Plates. Int. J. Non-Linear Mechanics, Vol. 18, No. 2, pp 95–118, 1983.
- Shilkrut D. Bifurcation in tension of nonlinear spherical caps. ASCE J Engng Mech Div 1983;109:289-96.
- Shilkrut D.: Stability and Vibration of Geometrically Nonlinear Cylindrically Orthotropic Circular Plates. J. of Applied Mechanics, 345–360, Vol. 51, June 1984.
- Shilkrut D.: The Influence of the Paths of Multiparametrical Conservative Loading on the Behaviour of a Geometrically Nonlinear Deformable Elastic Body. In: “Buckling of Structures; Theory and Experiment”. The Joseph Singer Anniversary Volume, (I. Elishakoff, J. Arbocz. C.D. Babcock, jr., A. Libai, eds.), Elsevier 1988
- Shilkrut D. On the influence of the paths of conservative multiparametrical loading on equilibrium states of geometrically nonlinear structures. Comput Struct 1992; 44:137-46.