



Professor Avinoam Libai (1929 – 2012)

See:

<http://ae-www.technion.ac.il/staff/pages/69>

<http://www.worldcat.org/identities/lccn-n87-942882>

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Biographical Data:

b. Israel, 1929. B.Sc., Technion, 1953. Public Works Dept. 1953-5. M.Sc., Purdue University, 1956. Ph.D. Purdue University, 1959. Johns Hopkins University, 1959-1961. Israel Aircraft Industries, 1961-1971. Head of Dept. Aeronautical Engineering, 1974- 1975. Head of Dept. of Aerospace Engineering 1989-March 1990. University of Virginia and Harvard University, 1977-1978. University of Virginia, 1984-1985. University of Oklahoma and University of Texas (Austin) 1990-1991. At Technion since 1971. Professor Emeritus since October 1997.

Main Interests:

Aerospace structures and structural mechanics. Special interest: nonlinear shell theory, shell dynamics, structural stability, variational methods.

Selected Publications:

“Nonlinear elastic shell theory”, *Advances in Applied Mechanics*, 23, 1983.

“Nonlinear shells dynamics – intrinsic and semi-intrinsic approaches”, *J. Appl. Mech.*, 50, 1983.

“The transition zone near wrinkles in pulled spherical membranes”, *Int. J. Solids Struct.*, 1990.

“Nonlinear membrane theory”, *Theoretical and Applied Mechanics*, S. Bodner, et al. eds., 1993.

“A mixed variational principle and its application to the nonlinear bending problem of orthotropic tubes”, *Int. J. Solids Struct.*, 31, 1994, pp. 1003-1018, 1019-1033.

“Fully inverse dynamics of a very flexible beam using a finite element approach and Lagrangian formulation”, *Computers and Structures*, 53, 1994.

“Intrinsic equations for the nonlinear dynamics of space beams”, *AIAA Journal*, 34, 1996, pp. 1657-1663.

Books:

The Nonlinear Theory of Elastic Shells, One Spatial Dimension, Academic Press, Boston, Feb. 1988.

The Nonlinear Theory of Elastic Shells, Cambridge University Press, Cambridge, UK, May 1998.

Buckling of Structures, Theory and Experiment, Elsevier, Amsterdam, 1988.