



Professor David Durban

D. Durban, J.G. Simmonds, Dan Givoli (editors), *Advances in the mechanics of plates and shells: the Avinoam Libai Volume*, Kluwer Academic Publishers, 2006, 361 pages

See:

<http://ae-www.technion.ac.il/staff/pages/7>

<http://orlabs.oclc.org/identities/lccn-nb98-94504/>

Biographical Data

b. U.S.S.R. 1944. B.Sc., Technion, 1966. M.Sc., Technion, 1971. D.Sc., Technion, 1975. 1966-67 Avions Marcel Dassault, Paris, France. 1976-77, Cambridge University, England. 1977-78 Harvard University, U.S.A. 1982-83, 1986-87, 1992 and 1999 Cambridge University, England. Overseas Fellow of Churchill College, Cambridge, 1999. **At Technion since 1970.** Professor since 1991. Head, Technion Center for Promotion of Teaching, 1994-1998. Sydney Goldstein Chair in Aeronautical Engineering. Chairman, Board of Directors, L.N. Entrepreneur Incubator.

Main Interests

Mechanics (strength, behavior and stability) of aerospace structures. Theory of plasticity and metal forming processes. Continuum mechanics and mathematical rheology of finite deformations. Sintered powder materials and porous solids.

Selected Publications

“On the differentiation of tensor functions”, *Math. Proc. Camb. Phil. Soc.*, 83, 1978, pp. 289- 297.

“Bifurcations at a spherical hole in an infinite elastoplastic medium”, *Math. Proc. Camb. Phil. Soc.*, 87, 1980, pp. 339-356 (with J.L. Bassani and J.W. Hutchinson).

“Drawing and extrusion of composite sheets, wires and tubes”, *Int. J. Solids Structures*, 20, 7, 1984, pp. 649-666.

“An exact solution for the internally pressurized, elastoplastic, strain-hardening, annular plate”, *Acta Mechanica*, 66, 1987, pp. 111-128.

“Asymptotic fields at tip of conical notches and inclusions in a power hardening solid”, *J. Mech. Phys. Solids*, 37, 2, 1989, pp. 233-263 (with N.A. Fleck).

“A comparative study of simple shear at finite strains of elastoplastic solids”, *Quart. J. Mech. Appl. Math.*, 43, 4, 1990, pp. 449-465.

“A general solution for the pressurized elastoplastic tube”, *J. Appl. Mech.*, 59, 1, 1992, pp. 20-26 (with M. Kubi).

“Diffusion of incremental loads in prestrained bars”, *Proc. Roy. Soc. Lond. A*, 439, 1992, pp. 683-600 (with W.J. Stronge).

“Squeeze-flow of a Herschel-Bulkley fluid”, *J. Non-Newtonian Fluid Mech.*, 77, 1998, pp. 115-121 (with J. Sherwood).

“Plastic buckling of plates and shells”, in *Stability Analysis of Plates and Shells*, NASA CP-1998-206280, 1998, pp. 293-311.

“Plastic buckling of circular cylindrical shells under nonuniform axial loads”, *J. Appl. Mech.*, 66, 1999, pp. 374-379 (with E. Ore).

“Influence of boundary conditions on decay rates in a prestrained plate”, *J. Appl. Mech.*, 69, 2002, pp. 515-520 (with B. Karp).

Books

Editor (with J.R.A. Pearson), *Non-Linear Singularities in Deformation and Flow*, Kluwer, 1999.

Editor (with D. Givoli and J.G. Simmonds), *Advances in the Mechanics of Plates and Shells*, The Avinoam Libai Anniversary Volume, Kluwer, 2001, 356 pages. Paperback edition (2002).