Professor Herzl Chai

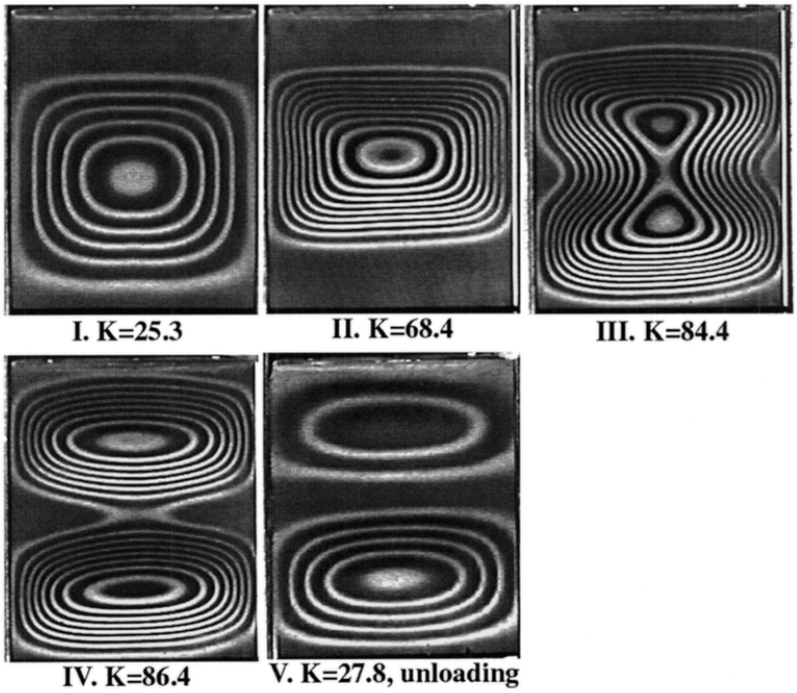

Fig. 3. Moire fringe sequence for unilaterally constrained plate under axial compression; b=76.2 mm, t=0.7 mm, R=1.2, fringe constant=0.3 mm, normalized fringe constant, f/t, is 0.43. K represents normalized edge displacement. Prints I–IV correspond to loading while print V to unloading.

From: Herzl Chai, "Contact buckling and postbuckling of thin rectangular plates", Journal of the Mechanics and Physics of Solids, Vol. 49, No. 2, February 2001, pp. 209-230

See:
https://english.tau.ac.il/profile/chai
https://www.eng.tau.ac.il/~herzl/

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Academic and Professional Experience:
1976-1981 – Ph.D, California Institute of Technology.
1982- Post-Doctoral Research Fellow, California Institute of Technology.
1983-1987 Visiting Scientist, Materials Laboratory, Mechanics and Surface Interaction Branch, Wright-Patterson AFB, Dayton, OH, USA.
1988 Research Fellow, Division of Materials Science, Johns Hopkins University, Baltimore, Maryland.
1989-1992 Staff Scientist, U.S. National Institute of Standards and Technology, Gaithersburg, Maryland.
1992-present – School of Mechanical Engineering, Faculty of engineering, Tel-Aviv University, Israel.
2005-2006 Visiting Associate, Ceramics Division, U.S. National Institute of Standards and Technology, Gaithersburg, Maryland.
2006-2008 Visiting Associate, Graduate Aeronautical Laboratory, California Institute of Technology.

Research Interests:

Experimental and analytical aspects of solid mechanics, with special emphasis on the deformation and fracture of biological structures, composite materials, and adhesively bonded joints.

Selected Publications:

H. Chai, C.D. Babcock, W.G. Knauss. One dimensional modeling of failure in laminated plates by delamination buckling. Int. J. Solids and Structures 17, 1069 -1083, 1981.

Chai, H., Babcock, C.D., 1985. Two-dimensional modeling of compressive failure in delaminated laminates. Journal of Composite Materials 19, 67–98.

Chai, H., 1990a. Three-dimensional analysis of thin-film debonding. International Journal of Fracture 46, 237–256.

H. Chai. Buckling and postbuckling behavior of elliptical plates, Part I – analysis. Journal of Applied Mechanics 57, 981-988, 1990.

H. Chai. Buckling and postbuckling behavior of elliptical plates, Part II – results. Journal of Applied Mechanics 57, 989-994, 1990.

Chai, H., 1998. The post-buckling behavior of a bi-laterally constrained column. Journal of the Mechanics and Physics of Solids 46, 1155–1181.

Herzl Chai, "Contact buckling and postbuckling of thin rectangular plates", Journal of the Mechanics and Physics of Solids, Vol. 49, No. 2, February 2001, pp. 209-230

H. Chai. On the posbuckling behavior of bilaterally constrained plates. International Journal of Solids and Structures 39, 2911-2926, 2002.

H. Chai. On the crush worthiness of a laterally confined bar under axial compression. Journal of Applied Mechanics 73, 834-841, 2006