



Professor Ashkan Vaziri

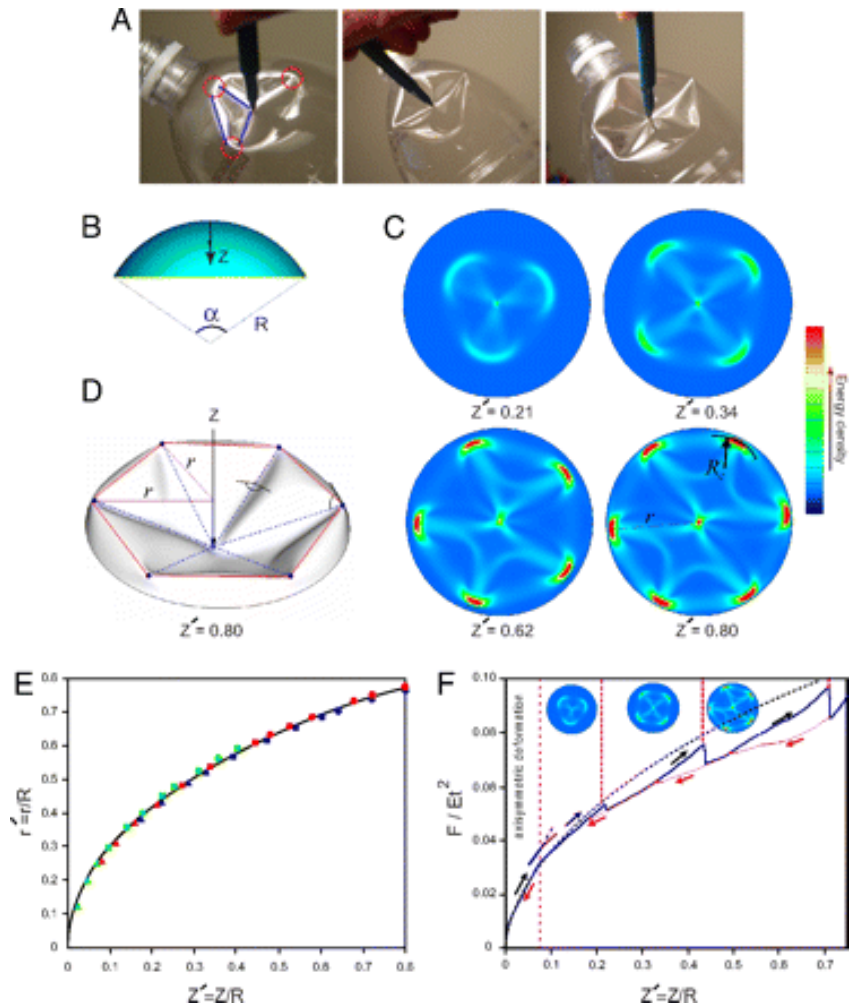
High Performance Materials and Structures Laboratory
 Northeastern University
 Associate of the School of Engineering and Applied Sciences
 Harvard University

Education:

B. Sc. 1999 Sharif University of Technology
 M. Sc. 2000 Sharif University of Technology
 Ph. D. 2004 Northeastern University
 Post-Doc 2004-2006 Harvard University

Editorial Activities:

2004- Reviewer for Int. J. of Adhesion and Adhesives, Biomechanics and Modeling in Mechanobiology, Biophysical Journal, Journal of Biomechanics, Computer Methods in Applied Mechanics and Engineering, Int. J. of Solids and Structures, J. Mechanics of Materials and Structures, J. Engineering Materials and Technology,



From: Ashkan Vaziri and L. Mahadevan, “Localized and extended deformations of elastic shells”, Proceedings of the National Academy of Sciences of the USA (PNAS), June 10, 2008 vol. 105 no. 23 pp. 7913-7918

J. Vibration and Acoustics, J. Applied Mechanics, Fatigue and Fracture of Engineering Materials and Structures, Experimental Mechanics, Materials Science & Engineering A, AIAA Journal, Computer Modeling in Engineering and Sciences, Journal of Materials Science and Engineering A, Molecular and Cellular Biomechanics, The Proceedings of Royal Society of London: A..

2007 Lead guest-editor of the special issue: Computational Impact Engineering, J. Mechanics of Materials and Structures (2007)

2007 Lead guest-editor of the special issue: Mechanics of Biomaterials in Small Length-Scale, J. Mechanics of Materials and Structures (2007)

2007 Guest-editor of the special issue: Experiments and Modeling in Cell and Biomolecular Mechanics, Experimental Mechanics (2007)

Patents/Technology disclosures:

1. M.W. Moon, A. Vaziri, S.H. Lee, J.Y. Sun, K.H. Oh, A method for creation of controlled Self-assembled wrinkles on polymer substrate using Focused Ion Beam irradiation (Patent Pending)

2. L. Mahadevan, A. Vaziri, Ch. Riera, Elastic Memories using Localized Bumps on Shell Structures (submitted to Harvard Office of Technology Licensing)

Selected Publications:

1. On the buckling of cracked composite cylindrical shells under axial compression, A. Vaziri, Composite Structures, 2007, 80(1), pp. 152-158

2. Performance and failure of metal sandwich plates subject to shock loading, A. Vaziri, Z. Xue, J. W. Hutchinson, J. Mechanics of Materials and Structures. (Special issue: Impact Engineering)

3. Persistence of a pinch in a pipe, L. Mahadevan, A. Vaziri, M. Das, Europhysics Letters, 2007, 77(1), pp. 40003.

4. Wrinkled hard skins on polymers created by Focused Ion Beam, M.W. Moon, S.H. Lee, J.Y. Sun, K.H. Oh, A. Vaziri & J. W. Hutchinson, Proceedings of the National Academy of Sciences, 2007, 104(1), pp. 1130-1133.

5. Dynamic crushing of square honeycomb structures in water blast, H. Wadley, K. Dharmasena, D. Queheillalt, Y. C. Chen, P. Dudt, D. Knight, Z. Xue & A. Vaziri, J. Mechanics of Materials and Structures, (Special issue: Impact Engineering)

6. Controlled formation of nanoscale wrinkling patterns on polymers using focused ion beam, M.W. Moon, S.H. Lee, J.Y. Sun, K.H. Oh, A. Vaziri, & J. W. Hutchinson, Scripta Materialia , 2007, 57(3), pp. 747-750

7. On the Behavior of Sandwich Structures Subjected to Under Water Impulsive Loads, L. Mori, S. Lee, Z. Xue, A. Vaziri, , D. Queheillalt, H. Wadley, J. W. Hutchinson & H.D. Espinosa, J. Mechanics of Materials and Structures

8. Metal sandwich plates with polymeric foam-filled cores, A. Vaziri, Z. Xue, J. W. Hutchinson, J. Mechanics of Materials and Structures, 2006, 1(1), pp. 95-128.

9. Superficial wrinkles in stretched, drying gelatin films, R. Rizzieri, L. Mahadevan, A. Vaziri, A. Donald, Langmuir, 2006, 22(8), pp. 3622-3626.

10. Buckling of cracked cylindrical shells under combined internal pressure and axial compression, A. Vaziri, H. E. Estekanchi, Thin-Walled Structures, 2006, 44(2), pp. 141-151.

11. Nested self-similar wrinkling patterns in skins, K. Efimenko, M. Rackaitis, W. Manias, A. Vaziri, L. Mahadevan, J. Genzer, Nature-Materials, 2005, 4, pp. 293-297.