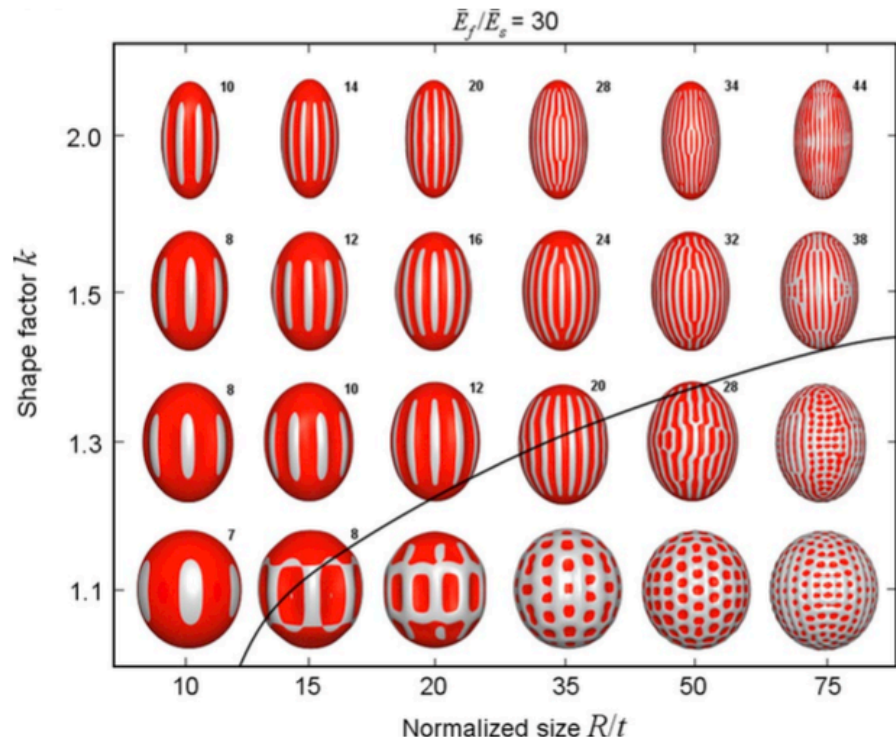


Professor Jie Yin



From: J. Yin, Z. Cao, C. Li, I. Sheinman, X. Chen, "Stress-driven buckling patterns in spheroidal core/shell structures," Proc. Natl. Acad. Sci., 105, 19132-19135 (2008)

See:

<http://engineering.temple.edu/person/yin-jie>

<https://sites.google.com/site/yinjie03/resume>

<http://freepdfs.net/dr-jie-yin-temple-university/3a7601cf280763d6a4d29ef59ddda8ad/>

Department of Mechanical Engineering
Temple University, 1947 N. 12th St, Philadelphia, PA 19122

Biography:

Dr. Jie Yin is an Assistant Professor in the Department of Mechanical Engineering at Temple University. Prior to Temple, Dr. Yin worked as a Postdoctoral Associate in the Department of Mechanical Engineering at MIT. Dr. Yin received his Ph.D. in Engineering Mechanics from Columbia University in 2010, M.S. in Solid Mechanics from Tsinghua University in 2007. Dr. Yin's research interests are on mechanics of advanced materials and structures at small scales, as well as its broad applications in energy, environment, and healthcare. In particular, his research focuses on mechanics of soft materials and its novel applications in anti-biofouling, lightweight nanocomposites for energy absorption, and renewable energy harvesting, etc. He has published more than 20 peer-reviewed journal papers as well as co-authored 3 book chapters. Dr. Yin has received several awards including the Founder Prize from the American Academy of Mechanics and NSF fellowship for Summer Institute on Nanomechanics etc. He is a member of the American Society of Mechanical Engineers, American Physical Society, and Materials Research Society.

Education:

Ph.D. Engineering Mechanics, Columbia University, 2010

M.S. Solid Mechanics, Tsinghua University, 2007

B.E. Marine Engineering, Wuhan University of Technology, 2003

Academic Appointments:

Assistant Professor, Department of Mechanical Engineering, Temple University, August 2013 – present

Postdoctoral Associate, Department of Mechanical Engineering, MIT, September 2010 - May 2013

Research Assistant, Department of Civil Engineering and Engineering Mechanics, Columbia University, New York, NY, September 2007 - August 2010

Research Interests:

Mechanical Self-assembly, Mechanics and Instability of Soft Materials, Mechanics of Energy

Absorption/Storage Materials, Design of Multifunctional Advanced Materials, Finite Element Modeling

Selected Publications:

Jie Yin and Mary C. Boyce, “Materials science: Unique wrinkles as identity tags”, *Nature*, Vol. 520, pp164–165, (09 April 2015), doi:10.1038/nature14380

J.L. Yague, J. Yin, M.C. Boyce, K.K. Gleason, “Mechanical tuning of two-dimensionally patterned wrinkled surface topographies”, submitted 2013

J. Yin, J. L. Yague, D. Eggensteiner, K. K. Gleason, M. C. Boyce, “Deterministic order in surface micro-topologies through sequential wrinkling”, *Adv. Mater*, 24, 5441-5446 (2012) (selected as Frontispiece)

L. Han, J. Yin, L. Wang, K.-K. Chia, R. E. Cohen, M. F. Rubner, C. Ortiz, M. C. Boyce, “Tunable stimulus-responsive friction mechanisms of polyelectrolyte films and tube forests”, *Soft Matter*, 8, 8642-8650 (2012)

Y. Yan, B. Wang, J. Yin, T. Wang, X. Chen, “Spontaneous wrinkling patterns of a constrained thin film membrane”, *Appl Phys. A.*, Vol. 107, pp 761-767, 2012

J. Yin, M. Retsch, E.L. Thomas, M.C. Boyce, “Collective mechanical behavior of multilayer colloidal arrays of hollow nanoparticles”, *Langmuir*, Vol. 28, pp 5580-5588, 2012

J. Yin, M. Retsch, J. Lee, E. L. Thomas, M. C. Boyce., “Mechanics of nanoindentation on a monolayer of colloidal hollow nanoparticles”, *Langmuir*, 27, 10492-10500 (2011)

J. Yin and X. Chen, “Effects of plasticity in buckling patterns of thin films on soft substrates”, *J. Phys. D: Appl. Phys.*, Vol. 44, 045401, 2011

J. Yin and X. Chen, “Elastic buckling of gradient thin films on compliant substrates”, *Philos. Mag. Lett.*, Vol. 90, pp 423-433, 2010

J. Yin, G.J. Gerling and X. Chen, “Mechanical modeling of a wrinkled fingertip immersed in water”, *Acta. Biomater.*, Vol. 6, pp 1487-1496, 2010

X. Chen, J. Yin, “Buckling patterns of thin films on curved compliant substrates with applications to morphogenesis and three-dimensional micro-fabrication”, *Soft Matter*, 6, 5667-5680 (2010) (invited review)

J. Yin, X. Chen, and I. Sheinman, Anisotropic buckling patterns in spheroidal film/substrate systems and their implications in some natural and biological systems, *J. Mech. Phys. Solids* 57 (2009), 1470–1484.

J. Yin, Z. Cao, C. Li, I. Sheinman, X. Chen, “Stress-driven buckling patterns in spheroidal core/shell structures,” *Proc. Natl. Acad. Sci.*, 105, 19132-19135 (2008)

J. Yin, Y. Yin and C. Lu, “General mathematical frame for open or closed biomembranes: stability theory based on differential operators”, *App. Math. Sci.*, Vol. 1, pp 1439-1463, 2007

Y. Yin, H.-Y. Yeh and J. Yin, “Stability similarities between shells, cells, and carbon nanotubes”, *IEE Proc. Nanobiotechnol.*, Vol. 153, pp 7-10, 2006