

Professor Cheng Zhang

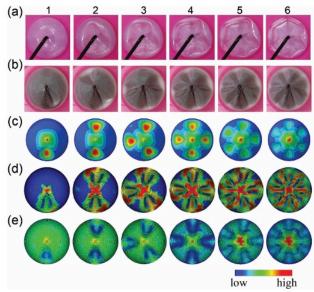


Fig. 2 Evolution of wrinkling patterns in a hemispherical shell. Experimental results under (a) inward and (b) outward point forces. Numerical results for (c) the displacement, (d) bending energy density, and (e) stretching energy density in the case of an outward force. In both experiments and simulations the soft shell has £ = 0.177 MPa, R = 15 mm, and h = 0.35 mm.

From: Cheng Zhang, Yu-Kun Hao, Bo Li, Xi-Qiao Feng and Huajian Gao, "Wrinkling patterns in soft shells", Soft Matter, Vol. 14, 1681, 2018

See:

https://www.researchgate.net/profile/Cheng_Zhang93

Institutes of Biomechanics and Medical Engineering and Center for Nano and Micro Mechanics Department of Engineering Mechanics Tsinghua University, Beijing, China

Selected Publications:

Liyuan Zhang, Cheng Zhang, Xiqiao Feng and Huajian Gao, "Snapping instability in prismatic tensegrities under torsion", Applied Mathematics and Mechanics – English Edition, Vol. 37, No. 3, pp 275-288, 2016 Cheng Zhang, Bo Li, Xiao Huang, Yong Ni and Xi-Qiao Feng, "Morphomechanics of bacterial biofilms undergoing anisotropic differential growth", Applied Physics Letters, Vol. 109, 143701, 2016 Cheng Zhang, Jiawen Wang, Yan-Ping Cao, Conghua Lu, Bo Li and Xi-Qiao Feng, "Microbead-regulated surface wrinkling patterns in a film-substrate system", Applied Physics Letters, Vol. 111, No. 15, 151601, 2017 Cheng Zhang, Bo Li, Jing-Ying Tang, Ziao-Ling Wang, Zhao Qin and Xi-Qiao Feng, "Experimental and theoretical studies on the morphogenesis of bacterial biofilms", Soft Matter, Vol. 13, ,7389, 2017 Cheng Zhang, Yu-Kun Hao, Bo Li, Xi-Qiao Feng and Huajian Gao, "Wrinkling patterns in soft shells", Soft Matter, Vol. 14, 1681, 2018