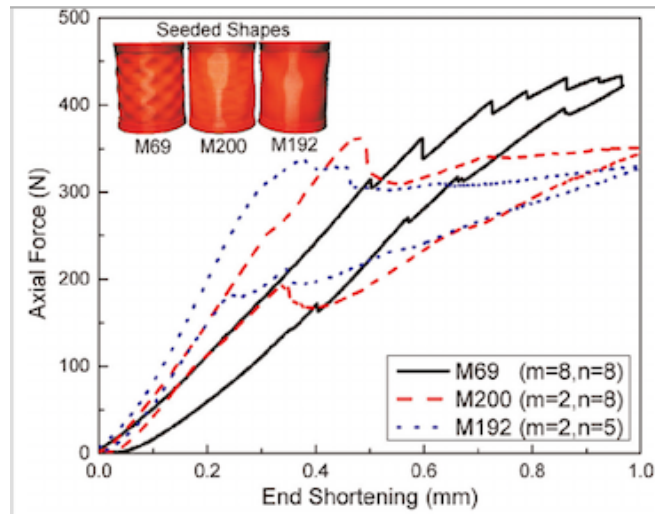


Dr. Nan Hu



From: Hu, N., and Burgueño, R. (2016). “Toward the design of smart devices using the elastic postbuckling of cylindrical shells with seeded geometric imperfection,” *Journal of Applied Mechanics*.

See:

<http://sites.dartmouth.edu/hu/files/2016/02/cv1.pdf>

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Research Interests:

Early topics related to: (1) structural form-finding and optimization; (2) the art and history of structures; (3) the design of civil infrastructure systems; (4) fiber-reinforced composites; (5) sustainable structural systems: Recent efforts emphasized on (1) novel structural concepts; (2) bio-inspired method and biomimetics; (3) nonlinear mechanics and structural testing; (4) static buckling and instability; (5) smart structures and devices

Education:

2015 Ph.D., Civil Engineering, Michigan State University; Dissertation: Tailoring of Elastic Postbuckling Response of Cylindrical Shells

Selected Publications:

Hu, N., and Burgueño, R. (2016). “Non-uniform Patterned Patches: A New Role in Controlling Elastic Postbuckling Behavior of Cylindrical Shells,” *Thin-Walled Structures*.

Hu, N., and Burgueño, R. (2016). “Toward the design of smart devices using the elastic postbuckling of cylindrical shells with seeded geometric imperfection,” *Journal of Applied Mechanics*.

Hu, N., and Burgueño, R. (2015). “Tailoring Of The Elastic Postbuckling Response of Cylindrical Shells: A Route for Exploiting Instabilities in Materials and Mechanical Systems,” *Extreme Mechanics Letters*, 4, 103-110.

Hu, N., and Burgueño, R. (2015). “Elastic Postbuckling Behavior of Cylindrical Shells with Seeded

Geometric Imperfection Design," *Thin-Walled Structures*, 96, 256-268.

Hu, N., and Burgueño, R. (2015). "Buckling-induced Smart Applications: Recent Advances and Trends," *Smart Materials and Structures*, 24(6), 063001.

Yan, B, Dai, G. L., Hu, N. (2015). "Recent Development of Design and Construction of Short-span High-speed Rail Bridges in China," *Engineering Structures*, 100, 707-717.

Burgueño, R., Hu, N, Heeringa, A, and Lajnef, N. (2014). "Tailoring the Elastic Postbuckling Response of Thin-walled Cylindrical Shell under Axial Compression," *Thin-Walled Structures*, 84, 14-25.

Nan Hu and Rigoberto Burgueño, "Buckling-induced smart applications: recent advances and trends", *Smart Materials and Structures*, Vol. 24, No. 6, May 2015