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See:

<http://www-unix.ecs.umass.edu/~arwade/>

<http://www.ecs.umass.edu/~arwade/arwade-cv.pdf>

<https://scholar.google.com/citations?user=MVhpg4MAAAAJ&hl=en>

Structural Engineering and Mechanics
Dept. of Civil and Environmental Engineering
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Education:

Ph.D. Cornell, 2002; M.S. Cornell, 1999; B.S.E. Princeton, 1996

Research Interests:

Probabilistic mechanics; material mechanics; historic structures; structural reliability; computational solid mechanics; structural aspects of wind energy; structural design of green buildings

Selected Publications:

Moradi M, Arwade SR “Improving Buckling Response of the Square Steel Tube by Using Steel Foam”, Structural Engineering and Mechanics 51:1017-1036 (2014)

Wei K, Arwade SR, Myers AT “Incremental wind-wave analysis of the structural capacity of offshore wind turbine support structures under extreme loading” Engineering Structures 79:58-69 (2014)

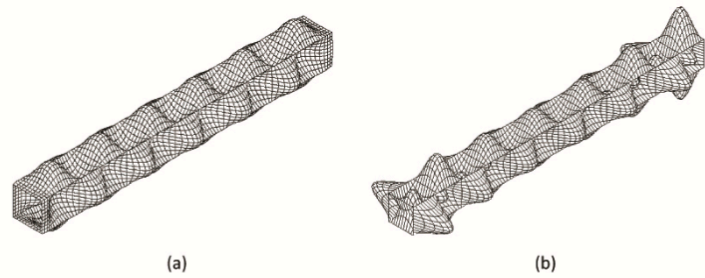


Fig. 8 Deformed shape of the empty tube under the pure compression after (a) collapse analysis (b) eigenvalue analysis

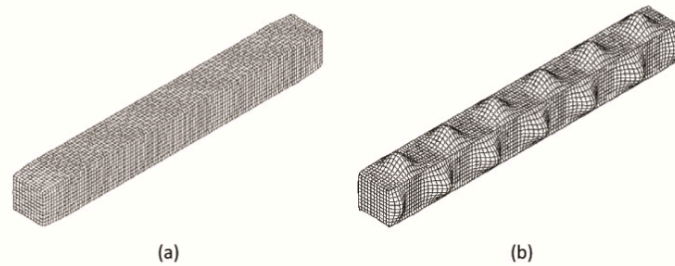


Fig. 9 Deformed shape of the fully filled tube under the pure compression after collapse analysis with (a) fully composite and (b) non composite behavior

From: Moradi M, Arwade SR “Improving Buckling Response of the Square Steel Tube by Using Steel Foam”, Structural Engineering and Mechanics 51:1017-1036, 2014

Szyniszewski S. T., Smith B.H., Hajjar J. F., Schafer B. W., Arwade S. R.: The mechanical properties and modeling of a sintered hollow sphere steel foam. *Materials and Design*, vol. 54, 2014, pp. 1083-1094.

Szyniszewski S, Smith BH, Hajjar JF, Schafer BW, Arwade SR “The mechanical properties of a sintered, hollow sphere, steel foam” *Materials & Design* 54:1083-1094 (2013)

Smith BH, Szyniszewski S, Hajjar JF, Schafer BW, Arwade SR “Characterization of steel foams for structural components.” *Metals* 2:399-410 doi:10.3390/met2040399 (2012)

Smith, B.H., S. Szyniszewski, J.F. Hajjar, B.W. Schafer, and S.R. Arwade. 2012. “Steel Foam for Structures: A Review of Applications, Manufacturing and Material Properties.” *Journal of Constructional Steel Research* 71 (April): 1–10. doi:10.1016/j.jcsr.2011.10.028.

Moradi M, Arwade SR, Schafer BW “Computational evaluation of limit states of thin-walled channels made from steel foam.” *Thin Walled Structures* 62:206-214 (2013)

Szyniszewski S, Smith BH, Hajjar JF, Arwade SR, Schafer BW “Local buckling strength of steel foam sandwich panels.” *Thin-Walled Structures* 59:11-19 (2012)

Szyniszewski, S., B.H. Smith, V.M. Zeinoddini, J.F. Hajjar, S.R. Arwade, and B.W. Schafer. 2012. “Towards the Design of Cold-formed Steel Foam Sandwich Columns.” In *21st International Specialty Conference on Cold-Formed Steel Structures*, pp.355–372. St. Louis, MO.
http://folio.jhu.edu/faculty_publications/Benjamin%20W._Schafer.

Pinto H, Arwade SR “A statistical model for the fatigue life of aluminum closed cell foams.” *Fatigue and Fracture in Engineering Materials and Structures* DOI 10.1111/j.1460-2695.2011.01591.x (2011)

Arwade SR, Lackner M, Grigoriu M “Probabilistic models for wind turbine and wind farm performance.” *Journal of Solar Energy Engineering* 133:10.1115/1.4004273. (2011)