

## PUBLICATIONS

**Ayyagari, R.S.** and M. Vural, “On the Nature of Pressure Dependence in Foams”, *Int. J. Solids Struct.*, Vol. 78, pp. 160-173, 2016. <http://www.sciencedirect.com/science/article/pii/S0020768315003868>.

Shafiq, M., **Ayyagari, R.S.**, Ehaab, M. and M. Vural, “Multiaxial Yield Surface of Transversely Isotropic Foams: Part II - Experiments”, *J. Mech. Phys. Solids*, Vol. 76, pp. 224-236, 2015. <http://www.sciencedirect.com/science/article/pii/S0022509614002075>.

**Ayyagari, R.S.** and M. Vural, “Multiaxial Yield Surface of Transversely Isotropic Foams: Part I - Modeling”, *J. Mech. Phys. Solids*, Vol. 74, pp. 49-67, 2015. <http://www.sciencedirect.com/science/article/pii/S0022509614002038>.

**Ayyagari, R.S.** and S. Nair, “Scattering of P-polarized Evanescent Waves by a Spherical Dielectric Particle”, *J. Opt. Soc. Am. B*, Vol. 26, pp. 2054-2058, 2009. <https://www.osapublishing.org/josab/abstract.cfm?URI=josab-26-11-2054>.

CONFERENCE  
PROCEEDINGS

**Ayyagari, R.S.** and M. Vural, “A New Approach to Yield Prediction in Cellular Solids”, *5th International Conference on Recent Advances in Space Technologies*, Istanbul, June 9 - 11, 2011. <http://ieeexplore.ieee.org/xpl/login.jsp?tp=&arnumber=5966800>

**Ayyagari, R.S.** and P. Kumar, “Frequency Response of a Three-Node Finite Element for Composite Thin and Thick Plates”, *ASME International Mechanical Engineering Congress and Exposition - IMECE*, Anaheim, November 13 - 19, 2004. <http://proceedings.asmedigitalcollection.asme.org/proceeding.aspx?articleid=1651821>

CONFERENCE  
PRESENTATIONS

Daphalapurkar, N.P., **Ayyagari, R.S.** and K. T. Ramesh, “Modeling anisotropic damage evolution in flaw-sensitive brittle materials under compressive loading”, *IMECE2016-68513, ASME International Mechanical Engineering Congress and Exposition*, Phoenix, November 11-17, 2016 (accepted).

**Ayyagari, R.S.**, Daphalapurkar, N.P. and K. T. Ramesh, “Effective Compliance of a Material with Spatially Distributed Planar Cracks under Compressive Loading”, *Mach*, Annapolis, April 6-8, 2016.

**Ayyagari, R.S.**, Mallick, D., Daphalapurkar, N.P., Tonge, A. and K. T. Ramesh, “Computational Implementation of Anisotropic Damage Failure in Brittle Materials”, *40<sup>th</sup> ICACC*, Daytona Beach, Florida, January 24-29, 2016.

Farbaniec, L., **Ayyagari, R.S.**, Hogan, J.D., Shaeffer, M., Daphalapurkar, N.P. and K. T. Ramesh, “Anisotropic Damage in Boron Carbide: Experiments and Constitutive Modeling”, *52<sup>nd</sup> SES Technical Meeting*, Texas A&M University, College Station, October 26-28, 2015.

**Ayyagari, R.S.**, Daphalapurkar, N.P. and K. T. Ramesh, “A Generalized Anisotropic Damage Model for Modeling Dynamic Brittle Failure in Ceramics”, *Mach*, Annapolis, April, 2015.

Mallick, D., Hogan, J.D., Farbaniec, L., Shaeffer, M., **Ayyagari, R.S.**, Daphalapurkar, N.P. and K. T. Ramesh, “Anisotropic Damage Modeling of Boron Carbide with an Informed Microstructure”, *39<sup>th</sup> ICACC*, Daytona Beach, Florida, January 25-30, 2015.

Hogan, J.D., Mallick, D., **Ayyagari, R.S.** and K.T. Ramesh, “Microstructure-based Modeling of the Failure and Strength of Advanced Ceramics”, *MS&T*, Pittsburgh, October, 2014.

**Ayyagari, R.S.** and K. T. Ramesh, “On Pressure Shear Behavior of AZ31”, *Mach*, Annapolis, April, 2014.

**Ayyagari, R.S.** and M. Vural, “Yield Behavior of Foams under Multiaxial Loading”, *48th Annual Technical Conference of SES*, Northwestern University, Chicago, October 12 - 14, 2011.

**Ayyagari, R.S.** and M. Vural, “Yield Behavior of Periodic Elongated Tetrakaidecahedral Foams”, *ASME Applied Mechanics and Materials Conference*, Chicago, May 30 - June 1, 2011.

**Ayyagari, R.S.** and M. Vural, “On the Nature of Pressure Dependence in Yield Behavior of Solid Foams”, *IUTAM Symposium: Mechanics of Liquid and Solid Foams*, University of Texas, Austin, May 8 - 13, 2011.

**Ayyagari, R.S.**, Shafiq, M. and M. Vural, “Experimental Validation of Pressure-Dependent Yield Criterion under Multiaxial States of Stress for Foam Cores”, *9th International Conference on sandwich structures*, CALTECH, Pasadena, June 14 - 16, 2010.