

Ali P. Gordon – Dept. of Mechanical & Aerospace Engineering (MAE), University of Central Florida

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(a) Professional Preparation

Georgia Institute of Technology	Ph.D.	Mechanical Engineering	2006
Georgia Institute of Technology	M.S.	Mechanical Engineering	2000
Georgia Institute of Technology	B.S.	Mechanical Engineering	1997
Morehouse College	B.S.	Mathematics	1997

(b) Appointments

- Associate Professor, Dept. of Mech. and Aero. Engr. (MAE), UCF, Fall 2012-present
- Summer Faculty Fellow, Structural Science Center, United State Air Force Research Laboratory, Wright-Patterson-AFB, Summer 2013
- Leadership Enhancement Program Scholar, UCF, Fall 2012-Spring 2013
- Visiting Scientist, Siemens Energy, Inc., Summer 2013
- CAE Link Faculty Fellow, University of Central Florida, Summer 2010 – Summer 2012
- Assistant Professor, Dept. of Mech., Mats., and Aero. Engr. (MMAE), UCF, Summer 2006 – 2012

(c) Books

Gordon, A. P. (2013) *A Handbook for Experiments in Mechanics of Materials*, Creative Printing and Publishing, Sanford, FL. (In Press).

Gordon, A. P. (2012) *Dictionary of Experiments of Mechanics of Materials*, Creative Printing and Publishing, Sanford, FL. <http://goo.gl/UuUim>

(d) Five Recent Relevant Publications

DeMarco, J. P., Uribe, C., Karl, J., Sohn, Y., and **Gordon, A. P.**, (2013) “Mechanical Characterization and Numerical Simulation of a Light-Weight, Aluminum A359 Metal Matrix Composite under Tensile Loading” *Materials at High Temperature*, (Accepted).

Kraft, S., and **Gordon, A. P.**, (2013) “Yield Behavior of a Twill Dutch Woven Wire Mesh Via Experiments and Numerical Modeling” *ASME Journal of Applied Mechanics*, (Accepted Manuscript) DOI: <http://dx.doi.org/10.1115/1.4007793>.

Stewart, C. M., and **Gordon, A. P.** (2012) “Constitutive Modeling of Multistage Creep Damage in Isotropic and Transversely-Isotropic Alloys with Elastic Damage” *ASME Journal of Pressure Vessel Technology* Vol. 123, No. 4. DOI: <http://dx.doi.org/10.1115/1.4005946>

Zhuge, J., Gou, J., Chen, R.-H., **Gordon, A. P.**, Kapat, J., Hart, D., and Ibeh, C. (2012) “Fire retardant evaluation of carbon nanofiber/graphite nanoplatelets nanopaper-based coating under different heat fluxes” *Composites Part B*, DOI: <http://dx.doi.org/10.1016/j.compositesb.2012.02.013>

Keller, S. G., and **Gordon, A. P.** (2012) “Experimental Study of Liquid Metal Embrittlement for the Aluminum 7075-mercury couple,” *Engineering Fracture Mechanics*, 84: 146-160. DOI: <http://dx.doi.org/10.1016/j.engfracmech.2012.02.005>

(e) Five Other Relevant Publications

DeMarco, J., Karl, J., Sohn, Y., and **Gordon, A. P.** (2012) “Characterization of the Torsional Response of As-cast A359-SiCp-30% at Elevated Temperatures” *Characterization of Minerals*,

Metals and Materials, Eds., Hwang, J.-Y., Monteiro, S. N., Bai, C. G., Carpenter, J., Cai, M., Firrao, D., Kim, B.-G., Wiley, pp. 451-477.

Stewart, C. M., and **Gordon, A. P.** (2011) “Strain and Damage-Based Analytical Methods to Determine the Kachanov-Rabotnov Tertiary Creep Damage Constants” *International Journal of Damage Mechanics*, DOI: 10.1177/1056789511430519

Daubenspeck, B., and **Gordon, A. P.** (2011) “Extrapolation Techniques for Very Low Cycle Fatigue Behavior of a Ni-Base Superalloy” *ASME Journal of Engineering Materials and Technology*, Vol. 133 (2): 021023-1 – 021023-11. DOI: 10.1115/1.4003602

Keller, S., and **Gordon, A. P.** (2011) “Stress Distribution in Helical Springs under Bending.” *Journal of Strain Analysis for Engineering and Design*, 46(6): 405-415, DOI: 10.1177/0309324711410128

Stewart, C. M., **Gordon, A. P.**, Hogan, E., and Saxena, A. (2011) “Characterization of the Creep Deformation and Rupture Behavior of DS GTD-111 Using the Kachanov-Rabotnov Constitutive Model” *ASME Journal of Engineering Materials and Technology*, Vol. 133 (2): 021013-1 – 021013-11.

(f) Synergistic Activities

Technical Activities:

- Session Chair and Reviewer for ASME Turbo Expo Division (Committee on Fatigue, Fracture, & Life Prediction), ASME Pressure Vessel & Piping Division
- Reviewer for *J. of Pressure Vessel Technology (JPVT)*, *J. of Applied Mechanics (JAM)*, *Surface & Coatings Technology (SurfCoat)*, *Fatigue & Fracture of Engineering Materials and Structures (FFEMS)*, *Int. J. of Fatigue (IJF)*, and more.

Community Service:

- Special Awards Judge for Office of Naval Research (ONR) at Intel International Science and Engineering Fair (Intel ISEF) (2005 – present)
- Special Awards Judge for Florida State Science and Engineering Fair (Florida SSEF) (2006 – present)

University, College and Department Service:

- College of Engineering and Computer Science Machine Laboratory Advisory Board, Interim Director (2010 - present)
- CECS Honors and Awards Committee, Member (2012-2013)
- MMAE Masters in Energy Systems Engineering (ESE) Program Development Committee, Member (2009)
- Faculty Advisor for UCF Student Chapter of American Society of Mechanical Engineers (ASME) (2006-present)
- UCF Ronald E. McNair Program Advisory Board (2008-present)

Memberships:

- American Society of Mechanical Engineers (ASME), American Society for Testing and Materials (ASTM), and American Society for Engineering Education (ASEE)

(g) Collaborators & Other Affiliations

- *Collaborators (alphabetically ordered):* Richard W. Neu (Georgia Tech); Ashok Saxena (Univ. of Arkansas); Robert Phillips (Orlando VAMC);
- *Graduate Advisors:* Dr. David L. McDowell and Dr. Richard W. Neu, Georgia Tech
- *Current Thesis Advisor:* Justin Karl (PhD Student), Calvin Stewart (PhD Student), Charles Mansfield (MS Student), Thomas Bouchenot (Accelerated BS-to-MS Student) , Bassem Felemban (PhD Student)