



Professor Michael William Hyer (1942-2017)

Obituary:

Michael William Hyer died unexpectedly on Wednesday, February 15. He was born in Buffalo, New York on September 2, 1942. He grew up in Wellsville, New York, where he ran track, made great friends and good grades, and began tinkering with cars. He was a proud graduate of SUNY-Buffalo, Purdue University, and the University of Michigan where he developed lifetime relationships with his faculty mentors. He worked on the Super Sonic Transport at Boeing for several years after his master's degree in the late 1960s, then went to the University of Michigan where he completed his Ph.D. in Aerospace Engineering and met and married the love of his life, Pat. His first faculty job was at Old Dominion University in Norfolk, Virginia. In 1978, he started his long career at Virginia Tech as a professor of Engineering Science and Mechanics (ESM), retiring as the N. Waldo Harrison Professor. He loved his teaching and research on the mechanics of composite materials and structures, but he especially cherished the relationships he built with his graduate students. Through them, he left a legacy that stretches around the world. Although he retired in 2010, he remained very active in his professional societies, reviewing journal articles, co-authoring papers with his former students, and supporting colleagues around the country. Among the many professional honors he received, he was especially proud to have been chosen Fellow of the American Institute of Aeronautics and Astronautics (AIAA).

Mike had many passions, but first among them were high performance cars, especially his 1963 Cobra and several Porsches. He seldom drove them, but loved their beauty and engineering. He ordered a Tesla 3 on the first day possible. He was known for his puns and loving to share his detailed knowledge about cars, airplanes, anything mechanical, and the latest devices he had acquired. In retirement, he also developed an interest in jazz and live music, and devoted significant time to the newly established Lifelong Learning Institute at Virginia Tech. He traveled around the world for conferences with colleagues and loved traveling and hiking with Pat.

Mike is survived by his wife of 44 years, Pat, his sisters Julie Lobsinger and Suzanne Hyer Savona and their husbands, his brother Philip Hyer, his uncle Harry Hyer and his family, and many loving nieces and nephews and their children. He was also a cherished member of Pat's extended family.

Professional Career:

<http://www.esm.vt.edu/people/retired/hyerm/hyerm-bio.html>
<http://www2.esm.vt.edu/publicationsList.php?id=10018>
<http://www.aoe.vt.edu/people/faculty/affiliates/hyerm.html>
<http://www.mii.vt.edu/Personnel/Hyer.html>
<http://www.worldcat.org/identities/lccn-n84-21297>
<http://www.sagepub.com/editorDetails.nav?contribId=525704>
http://www.goodreads.com/author/show/1695927.Michael_W_Hyer
<http://www.abebooks.com/book-search/author/michael-w-hyer/>
<http://journalogy.net/Author/12967824/michael-w-hyer>

Virginia Tech College of Engineering
N. Waldo Harrison Professor Emeritus

Interests:

Mechanics of composite materials and structures, solid mechanics

Education:

1974 Ph.D., Aerospace Engineering, University of Michigan
1966 M.S., Engineering Science, Purdue University
1964 B.S., Aerospace Engineering, State University of New York at Buffalo

Honors & Awards:

2008 Dean's Award for Excellence in Service, Virginia Tech
2007 Outstanding Aerospace Engineer, Purdue University
2005 N. Waldo Harrison Professorship
2005 Alumni Award for Research Excellence, Virginia Tech
2005 Outstanding Research Award, American Society for Composites
2005 Frank J. Maher Award for Excellence in Engineering Education, Engineering Science and Mechanics
2003 Fellow, American Academy of Mechanics
2003 Fellow, American Institute of Aeronautics and Astronautics
2002 Best Paper Award, American Society for Composites
2002 Fellow, American Society for Composites
2002 Distinguished Service Award, American Society for Testing and Materials
2001 CRC Award in Composites
1997 Fellow, American Society of Mechanical Engineers

Professional Service:

SERVICE TO THE PROFESSION:

American Society for Composites: Past-President, 2002-03, President, 2000-02; President-Elect, 1998-2000; Recording Secretary of Executive Committee, 1996-98, Elected Member-at-Large to Executive Committee, 1994-96, Program Chairman, 4th Technical Conference, Blacksburg, 1989; Organizer and Co-Chairman, 16th Technical Conference, Blacksburg, 2001; Session co-chair at a number of ASC Technical Conferences

International Council on Composite Materials: Vice-President, Region 3 - the Americas, July 2003- July 2005

American Society of Mechanical Engineers: compiled Worldwide Mechanics Meetings listing for J. Applied Mechanics 1980-1996; member of Applied Mechanics Division, ASME's Committee on Composite Materials; Reviewer, J. Applied Mech. and Applied Mech. Rev.; Organized Symposium on Mechanics of Composite Materials - Nonlinear Effects for Joint SES/ASME/ASCE Meeting in 1993; Session co-chair at a number of ASME technical meetings

American Institute of Aeronautics and Astronautics: Chair, Structures Technical Committee, 2007-2009; Technical Chair, 48th Structures, Structural Dynamics, and Materials Conference, Honolulu, HI, April 2007; Organizer of Interactive Plenary Session, 41st SDM, 2000, Organizer of Interactive Plenary Session, 38th SDM Conference, 1997; Organizer of Interactive Plenary Session, 37th SDM Conference, 1996; ASC Representative on SDM Planning Committee; Session co-chair at a number of SDM Conferences; Organized and taught portion of 2- day short course, Introduction to Composite Materials and Structures: Processing, Analysis, and Design, 1991; Course Leader, Home Study Course, Introduction to the Mechanics of Fiber-Reinforced Materials and Structures, 1989-90; Panel Organizer and Moderator, Panel on Education, 26th SDM Conference, 1985; Panelist on Aerospace Education Issues Panel, Annual Meeting, 1984; Member Structures Technical Committee, 1980-83, 2002-05; Chair Blue Ridge Section, 1982-84; Vice- Chair of Blue Ridge Section, 1981-82; Reviewer for AIAA Journal, J. of Aircraft, and SDM Conferences

US National Congress of Applied Mechanics (14th): Scientific Co-Chair, Blacksburg, VA, 2002

International Conference on Composite Materials (14th); Vice-Chair, San Diego, CA, 2003

Virginia Space Grant Consortium: Virginia Tech representative to Advisor Board, 1995-97

Accrediting Board for Engineering and Technology: Appointed Evaluator, 1989

Member, Editorial Advisory Board: Journal of Composite Materials

Member, Editorial Board: Advanced Composite Materials

Member, Editorial Board: Mechanics of Advanced Materials and Structures

Member, Editorial Board: Journal of Composites Technology and Research

Society of Engineering Science: Board Member, 2006-2008, Editor, SES Newsletter, 1995-2000

Office of Naval Research: Member US Study Team on Advanced Composites on two-week fact-finding trip to Japan, Dec. 1988

Council of US-Japan Committee: Executive Committee, 2005-2009, Member, 1992-2005; Program Chair, 6th Japan-US Conference on Composite Materials, 1992

National Science Foundation: Advisory Panelist, Individual Investigator Awards, 1995; Member, Workshop for Research on Advanced Composites in Construction, 1994; Member, site review team for composites program in State of Mississippi, 1989; Member of Advisory Panel on science education (CAUSE), 1978; Currently review proposals in the area of solid mechanics and composites

National Academy of Sciences: AFOSR Proposal Reviewer, 1998, 2003; Reviewer for report on the use of inorganic matrix composites in advanced transport aircraft, 1987; Structures Panel Leader, Workshop on Aeronautics Technology in the Year 2000, 1983-84; Panelist on ad hoc panel to review progress on space shuttle filament wound cases, 1984

6th, 10th, 11th, 12th, 13th, 14th International Conference for Composite Materials (1986-present): member of Scientific Committee, paper reviewer

International Union of Theoretical and Applied Mechanics: Chairman, Local Arrangements Committee, IUTAM Symposium on Composite Materials, Blacksburg, VA, 1982

Sigma Xi: President of Old Dominion University Club, 1976; Vice-President, 1977

Misc: Reviewer for a large number of journals; Reviewer, David Taylor Research Center Program Overview, 1990, 1988; Invited panelist, 4th, "Thick Composites in Compression," Workshop, 1990; Session co-chair for 4th Japan-US Conference on Composite Materials, Washington, DC, 1988; Session co-chair for 3rd Japan-US Conference on Composite Materials, Tokyo, 1986, Session co-chair 4th Int. Conf. on Composite Materials, Tokyo, 1982; Session co-chair at number of misc. conferences, e.g., 17th Midwest Mechanics Conf., 1981, 23rd Annual Meeting of Soc. of Engineering Science, Aug. 1986

Books and Book Chapters Published by Professor Hyer:

Books:

Hyer, M.W., Stress Analysis of Fiber-Reinforced Composite Materials, WCB/McGraw-Hill,, 1998

Book Chapters:

Hyer M.W. and S.W. Case, Mechanics of Composite Materials, , Marksâ€™™ Standard Handbook for Mechanical Engineers, 11th Ed., E.A. Avallone, T. Baumeister, III, and A.M. Sadeg, 5-71 to 5-91, 2007

Hyer, M.W., Laminated Plate and Shell Theory, Comprehensive Composite Materials, T.-W. Chou, volume editor, A. Kelly and C. Zweben, overall editors, Elsevier Science Publishers, ch. 18, vol. 1, pp. 479-510, 2000

Hyer, M.W. and Wass, A.M., Micromechanics of Linear Elastic Composites, Comprehensive Composite Materials, T.-W. Chou, volume editor, A. Kelly and C. Zweben, overall editors, Elsevier Science Publishers, ch. 12, vol. 1, pp. 345- 376, 2000

Recent Publications:

Sun, Miao and Hyer, M W, Use of Material Tailoring to Improve Buckling Capacity of Elliptical Composite Cylinders , 48th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, AIAA Paper 2007-2353, April, 2007

Hyer M.W. and S.W. Case, Mechanics of Composite Materials, , Marks, "!" Standard Handbook for Mechanical Engineers, 11th Ed., E.A. Avallone, T. Baumeister, III, and A.M. Sadeg, 5-71 to 5-91, 2007

Schultz, M.R., M.W. Hyer, R.B. Williams, W.K. Wilke, D.J. Inman, Snap-Through of Unsymmetric Laminates Using Piezocomposite Actuators, Composite Science and Technology, 66, 2442-48, 2006

Aimmanee, S. and M.W. Hyer, A Comparision of Various Piezoceramic Actuators, J. Intelligent Material Systems and Structures, 17(2), 167-186, 2006

Sun, Miao and M.W. Hyer, Axial Buckling Behavior of Noncircular Composite Cylinders, Proceedings of the American Society for Composites 20th Annual Technical Conference, Philadelphia, PA, F. K. Ko, G. R. Palmese, Y. Gogotsi, A. S. D. Wang, CD-ROM, available DesTECH Publications, Inc. Lancaster, PA, ISBN 1-932078-50-9, Sept 7-9, 2005

For full listing of Professor Hyer's publications, Google "Hyer Virginia Tech"

Courses Taught:

ESM 3054	Mech Behav Matls	Spring 2010
ESM 5074	Mech Lam Comp Str	Spring 2010
ESM 6044	Theory of Plates and Shells	Fall 2009
ESM 3054	Mech Behav Matls	Spring 2009
ESM 5454	Elastic Stability	Fall 2008
ESM 5744	Variational Methods	Fall 2008
ESM 3054	Mech Behav Matls	Spring 2008
ESM 5074	Mech Lam comp Str	Spring 2008

ESM 5994 Research and Thesis Spring 2008
ESM 7994 Research and Dissertation Spring 2008
ESM 3704 Basic Principles of Structures Fall 2007
ESM 5744 Variational Methods Fall 2007
ESM 5994 Research and Thesis Fall 2007
ESM 7994 Research and Dissertation Fall 2007
ESM 3054 Mech Behav Matls Spring 2007
ESM 5994 Research and Thesis Spring 2007
ESM 7994 Research and Dissertation Spring 2007
ESM 5454 Elastic Stability Fall 2006
ESM 6154 Composite Analysis Fall 2006
ESM 3054 Mech Behav Matls Spring 2006
ESM 2304 Dynamics Fall 2005
ESM 2304 Dynamics Spring 2005
ESM 5454 Elastic Stability Fall 2004
ESM 6154 Composite Analysis Fall 2004
ESM 2104 Statics Spring 2004
ESM 2104 Statics Fall 2003