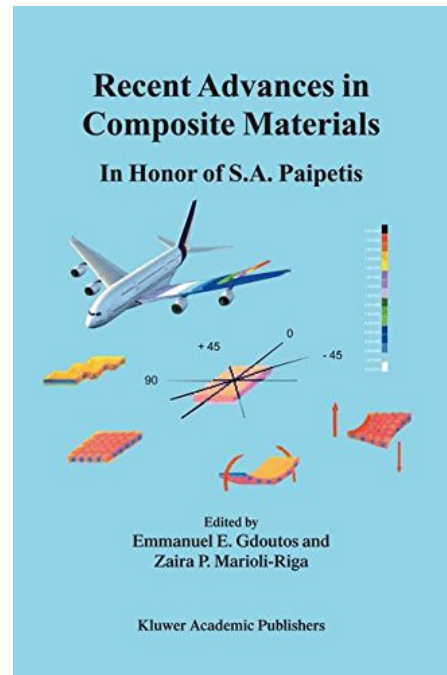




Professor Emmanuel E. Gdoutos



E.E. Gdoutos and Zaira Maroli-Riga (Editors), Recent Advances in Composite Materials (in honor of S.A. Paipetis), Springer, 2003

See:

<http://www.icem17.org/files/egdoutos-cv.pdf>

<https://scholar.google.com/citations?user=m9Y1nIYAAAAJ&hl=en>

https://www.researchgate.net/profile/E_Gdoutos

Director, Laboratory of Applied Mechanics, Department of Civil Engineering
Democritus University of Thrace, Xanthi, Greece

Also: Adjunct Professor, Dept. of Civil Engineering, Northwestern University, Evanston, Illinois, USA

Biography:

Professor Emmanuel E. Gdoutos was born in the island of Lesvos in Greece in 1948. He graduated from the Department of Civil Engineering of the National University of Athens (NTUA) with the degree of Master of Science in 1971 among the first of his class. He received the degree of Doctor of Philosophy in Applied Mechanics from NTUA in 1973.

Following his graduation he served as an assistant at the Chair of Applied Mechanics of NTUA during the period 1971-1974. In 1974 he was appointed as an instructor at the above Chair of NTUA. In 1977 he was elected Professor at the Chair of Applied Mechanics and director of the laboratory of Applied Mechanics of the Democritus University of Thrace (DUT) in Greece, a position that he holds up to now. He held various Visiting Professor appointments in universities in USA including Lehigh University (1981-1982), University of California at Santa Barbara (1986), University of California at Davis (1987), Michigan Technological University (1987), University of Toledo (1992) and Northwestern University (1989-1990 and 1999-2006). He served as Chairman of the department of Civil Engineering and director of the section of Design and Construction of Structures and of Mechanics of DUT. He is Adjunct Professor at the department of Civil Engineering of Northwestern University (2003-2008).

Professor E.E. Gdoutos is President of the European Structural Integrity Society (ESIS) 2006-2010, Chairman

of European Association for Experimental Mechanics (EURASEM), 2003- 2007, member of the European Academy of Sciences and Arts, fellow of the American Society of Mechanical Engineers, the Society for Experimental Mechanics (SEM) and the New York Academy of Sciences, and President of the Greek Group of Fracture (2003-2007). He serves on the Executive, the Fellows and Honors Committees of SEM. He is Honorary Member of the Italian Group of Fracture. He is member of the editorial board of the journals: Theoretical and Applied Fracture Mechanics, Applied Composite Materials, Advanced Composites Letters, The Archive of Mechanical Engineering of Polish Academy and Facta Universitatis of the University of Nis. He is member of the following scientific societies: Society for Experimental Mechanics of U.S.A., Optical Society of America, Greek Society of Theoretical and Applied Mechanics, American Society of Mechanical Engineers, Sigma Xi, New York Academy of Sciences, American Society of Civil Engineer, European Structural Integrity Society, Greek Association of Computational Mechanics, American Academy of Mechanics, American Society of Metals, Greek Group of Fracture.

He received two Fulbright research awards to visit Lehigh and Northwestern universities. He received the Distinguished Visiting Professorship Award of the University of Toledo of USA in 1992. He is listed in "Who's Who in the World" "International Who's Who of Intellectuals," "International Who's Who in Education"; "Five Thousand Personalities of the World," Who's Who in Greece (1993, 1995); "Who is Who in the World," "Longman Who's Who," "Who's Who in Science and Engineering." He is member of the editorial board of the "International Series on Advances in Fracture Mechanics," published by WIT Press. He served as guest editor of the special issues of: International Journal of Fracture, Vol. 79, No.2, pp. 97-208, 1996, Applied Composite Materials, Vol. 3, No. 5, pp. 265-353, 1996, International Journal of Fracture, Vol. 98, No 3-4, 1999, Facta Universitatis, Vol. 3, No 13, pp. 491-764, 2003, Applied Composite Materials, Vol. 12, No 3-4, pp.133-261, 2005.

He served as member of the "Structures and Materials Panel of AGARD" (1992-1997); member of the "Research Board of Advisors and Fellow of the American Biographical Institute" and vice-chairman of the Research Committee of the Democritus University of Thrace (1994-1997). He served as a reviewer in many international journals in the area of applied mechanics in the last thirty years.

He taught at many universities in Greece and USA. He visited more than seventy universities and research establishments all over the world in which he gave invited lectures, seminars and had scientific collaboration. He participated in more than eighty international conferences in the area of applied mechanics. He participated in many Erasmus and Tempus inter-university programs for the promotion of the scientific and educational cooperation among education institutes of countries of the

European Union His research interest include: experimental mechanics, fracture mechanics advanced composite materials and sandwich construction. His current research projects are concerned with sandwich constructions, tearing and fatigue of elastomers, nanotechnology, composite patch repair of metallic aircraft and design and analysis of a bridge made of composite materials. He conducted extensive research work funded by many national and international organizations. He supervised more than ten PhD. students and dozens of Master students in Greece and USA. Many of his students hold faculty positions in Greek and foreign universities.

He organized many conferences including the following: "International Symposium on Mechanics and Physics of Energy Density," Xanthi, Greece, 17-20/7/1989; "Fourth Greek National Congress on Mechanics," Xanthi, 26-29/6/1996; "First Hellenic Conference on Composite Materials and Structures," Xanthi, 2-5/7/1997; "Recent Advances in Mechanics," Xanthi, 4-6/7/1998; "International Symposium on Recent Advances in Mechanics-In Honor of A.N. Kounadis," Athens, 25/11/2000; "Symposium on Recent Advances in Experimental Mechanics-In Honor of Isaac .M. Daniel," Virginia Polytechnic Institute and State University, USA, 23-28/6/2002; "Symposium on Recent Advances in Composite Materials-In Honor of S. A. Paipetis," Xanthi, 12-14/6/2003, "16th European Conference of Fracture," Alexandroupolis, Greece July 3-7, 2006 and "13th International Conference on Experimental Mechanics," Alexandroupolis, July 1-6, 2007.

Professor Gdoutos has published over two hundred thirty technical papers in refereed scientific journals and conference proceedings. He has published the following books: "Theory and Applications of Photoelasticity," pp. 1-127, Athens National Technical University, 1976; "Matrix Theory of Photoelasticity," pp. i-xi and 1-352, Springer Verlag, 1979 (with P.S. Theocaris); "Mechanics of Deformable Bodies - Theory of Elasticity and Strength of Materials," pp. i-xv and 1-542, Kyriakidis Bros Publishers, 1979; "Kinematics," pp. i-x and 1-106, Kyriakidis Bros Publishers, 1981; "Statics - Exercises, Vol. I," pp. i-xiii and 1-558, Kyriakidis Bros Publishers., Thessaloniki, 1981 (with Dr. C. Calfas); "Statics - Exercises, Vol. II," pp. i-viii and 1-769, Kyriakidis Bros Publishers, 1983 with Dr. C. Calfas); "Problems of the Theory of Elasticity," pp. i-xii and 1-318, Kyriakidis Bros Publishers, 1984 (with Dr. D. Zacharopoulos); "Problems of Mixed-Mode Crack Propagation," Martinus Nijhoff Publishers, pp. i-xiv and 1-204, 1984; "Statics," pp. 1-359, Kyriakidis Bros Publishers, 1984; "Principles of Mechanics of Rigid Bodies–Statics," Vol. I, pp. i-xii and 1-480, Kyriakidis Bros Publishers, 1985; "Principles of Mechanics of Rigid Bodies - Statics", Vol. II, pp. i-xii and 1-492, Kyriakidis Bros Publishers, 1986; "Fracture Mechanics Criteria and Applications," pp. i-xii and 1-314, Kluwer Academic Publishers, 1990; "Fracture Mechanics - An Introduction," pp. i-xiii and 1-307, Kluwer Academic Publishers, 1993; "Solutions Manual: Fracture Mechanics - An Introduction," pp. i-viii and 1-196, Kyriakidis Bros Publishers, 1996; "Problems of Fracture Mechanics and Fatigue," Kluwer Academic Publishers, pp. i-xxvi and 1-618 (with C.A. Rodopoulos and J.R. Yates); Fracture Mechanics - An Introduction, Second Edition, Springer, pp. I-xv and 1-369, Springer, 2005.

He has edited the following books: "Mechanics and Physics of Energy Density," pp. I-VIII and 1- 209, Kluwer Academic Publishers, 1992 (with Prof. G.C. Sih.); "Proceedings of the Fourth Greek National Congress on Mechanics," Vols. I and II, pp. i-xvi and 1-1068, Kyriakidis Bros Publishers, 1995 (with P.S. Theocaris); "Proceedings of the First Hellenic Conference on Composite Materials and Structures," Vol. I, pp. i-xiv and 1-810 and Vol. II, pp. i-xvi and 1-238, Kyriakidis Bros Publishers, 1997 (with Prof. S.A. Paipetis); "Honorary Volume for Professor D.D. Raftopoulos," pp. i-xxvi and 1-562, Athanasopoulos and Papadamis Publishers, 1998.; "Recent Advances in Mechanics-Abstracts," pp. i-viii and 1-102, Athanasopoulos and Papadamis Publishers, 1998 (with Prof. A.N. Kounadis.); "Failure Analysis of Industrial Composite Materials," pp. i-xviii and 1-555, McGraw-Hill, 2000, (with K. Pilakoutas and C.A. Rodopoulos,); "Recent Advances in Applied Mechanics - Honorary Volume for Professor A.N. Kounadis," pp. i-xix and 1-349, National Technical University of Athens, 2000 (with J.T. Katsikadellis and D.E. Beskos), "Recent Advances in Experimental Mechanics - In Honor of Isaac M. Daniel," pp. i-xlvi and 1-798, Kluwer Academic Publishers, 2002; "Recent Advances in Composite Materials - In Honor of. S. A. Paipetis," pp. i-xxviii and 1-381, Kluwer Academic Publishers, 2003 (with Z.P. Marioli-Riga); "Fracture of Nano and Engineering Materials and Structures," Proceedings of the 16th European Conference of Fracture (ECF16), pp. i- 1 and 1-1418, Springer, 2006; "Collected Papers of Pericles S. Theocaris," Introductory Volume & Vols 1-10; "Experimental Analysis of Nano and Engineering Materials and Structures," Proceedings of the 13th International Conference on Experimental Mechanics (ICEM13), Springer, 2007.

His book "Fracture Mechanics – An Introduction" is being used by many universities worldwide as a textbook for graduate courses in fracture mechanics. Also his numerous books in Greek in the area of applied mechanics are used by many Greek universities as t. . . (no more is given in the pdf file)

Education:

MS CE: National Technical University of Athens, Civil Engineering, June 1971

Ph.D.: National Technical University of Athens, Mechanical Engineering, July 1973

Honorary Diplomas:

- Honorary Doctor of Philosophy of the Russian Academy of Sciences, 2010

- Honorary member of the Serbian Society of Theoretical and Applied Mechanics, 2011
- Honorary member of the Polish Society for Theoretical and Applied Mechanics, 2009
- Honorary member of the Italian Group of Fracture, 2004

Fellowships:

- Fellow of the American Society of Mechanical Engineers (ASME), 1993
- Fellow of the Society for Experimental Mechanics (SEM), 2004
- Fellow of the European Structural Integrity Society (ESIS), 2008
- Fellow of the International Congress on Fracture (ICF), 2009

Awards:

- “Award of Merit,” European Structural Integrity Society (ESIS), 2008
- “Theocaris Award,” Society for Experimental Mechanics (SEM), 2009
- “Lazan Award,” Society for Experimental Mechanics (SEM), 2009
- Medal and Diploma of the International Academic Rating of Popularity “Golden Fortune,” 2009
- Paton Medal of the Ukrainian Academy of Sciences, 2009
- Jubilee Medal “XV Year to IAE” of the International Academy of Engineering, 2009
- “Tatnall Award,” Society for Experimental Mechanics (SEM), 2010
- “Award of Merit,” European Society for Experimental Mechanics (EURASEM), 2010
- “Griffith Medal,” European Structural Integrity Society (ESIS), 2010
- “Zandman Award,” Society for Experimental Mechanics (SEM), 2011
- “Golden Sign,” Russian Academy of Engineering, 2011
- “Panetti-Ferrari Prize,” Turin Academy of Sciences, 2012
- “Theocaris Award,” European Society for Experimental Mechanics (EURASEM), 2012

Positions Held:

1971-1973 Graduate Research and Teaching Assistant, Laboratory of Testing Materials, National Technical University of Athens, Athens, Greece

1973-1977 Instructor, Department of Theoretical and Applied Mechanics, National Technical University of Athens

1977-1980 Associate Professor, Chair of Applied Mechanics, Democritus University of Thrace

1980-now Professor and Director of Laboratory of Applied Mechanics, Department of Civil Engineering, Democritus University of Thrace

Publications:

Author of 16 books, 135 papers in refereed journals, 136 papers in conference proceedings, and editor of 18 books

Research Interests:

Experimental mechanics; Advanced composite materials; Fracture mechanics; Sandwich construction

Selected Publications:

Selected books (selected from many):

E.E. Gdoutos and Zaira Maroli-Riga (Editors), Recent Advances in Composite Materials (in honor of S.A. Paipetis), Springer, 2003

I.M. Daniel, E.E. Gdoutos, Y.D.S. Rajapakse (editors), Major accomplishments in composite materials and sandwich structures, Springer, 2010, 818 pages

Journal Articles, etc.:

- Gdoutos EE, Daniel IM, Wang KA (2001) Multiaxial characterization and modelling of a PVC cellular foam. *J Therm Comp Mat* 14:365–373
- Daniel IM, Gdoutos EE, Abot JL, Wang KA (2001) Effect of loading conditions on deformation and failure of composite sandwich beams. ASME, IMECE 2001/AMD-25412.
- Daniel IM, Gdoutos EE, Abot JL, Wang KA (2001) Core failure modes in composite sandwich beams. ASME, 2001, IMECE, AD-Vol. 65/AMD-Vol. 249:293–303.
- Gdoutos EE, Daniel IM, Wang KA, Abot JL (2001) Nonlinear behavior of composite sandwich beams under three-point bending. *Exp Mech* 41(2):182–188.
- Daniel IM, Gdoutos EE, Wang KA (2002) Failure of composite sandwich beams. *Adv Comp Lett* 11(2):49–57.
- Daniel IM, Gdoutos EE, Wang KA, Abot JL (2002) Failure modes of composite sandwich beams. *Int J Dam Mech* 11:309–334.
- Gdoutos EE, Daniel IM, Wang KA (2002) Indentation failure in composite sandwich structures. *Exp Mech* (42):426–431.
- Abot JL, Daniel IM, Gdoutos EE (2002) Contact law for composite sandwich beams. *J Sand Struct Mater* (4):157–173.
- Gdoutos EE, Daniel IM, Wang KA (2002) Failure of cellular foams under multiaxial loading. *Comp Part A* 33:163–176.
- Gdoutos EE, Daniel IM, Wang KA, Abot JL (2003) Compression facing wrinkling of composite sandwich structures. *Mech Mater* (35):511–522.
- Daniel IM, Gdoutos EE, Abot JL, Wang KA (2003) Deformation and failure of composite sandwich structures. *J Thermopl Comp Mater* (16):345–364.
- Gdoutos EE, Balopoulos V (2008) Kinking of interfacial cracks in sandwich beams. *Proc Eighth Int Conf Sand Struct (ICSS8)*, Porto, Portugal.
- Agrawal R., Peng B., Gdoutos E.E., Espinosa H.D.: Elasticity size effects in ZnO nanowires—a combined experimental-computational approach. *Nano Lett.* 8, 3668–3674 (2008)
- Isaac M. Daniel and Emmanuel E. Gdoutos, “Failure Modes of Composite Sandwich Beams”, in *Major Accomplishments in Composite Materials and Sandwich Structures, 2010, III*, 197-227
- Gdoutos MSK, Metaxa ZS, Shah SP (2010) Multi-scale mechanical and fracture characteristics and early-age strain capacity of high performance carbon nanotube/cement nanocomposites. *Cement Concr Compos* 32:110–115