

## THEOCHARIS BAXEVANIS

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Department of Mechanical Engineering  
N232, Engineering Bldg 1  
Cullen College of Engineering, University of Houston  
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## EDUCATION

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- 2003 **Ph.D.**, Dept. of Civil Engineering, Aristotle University of Thessaloniki, Greece
- 1998 **Certificate in Construction Science and Technology**, Dept. of Civil Engineering, Aristotle University of Thessaloniki, Greece
- 1996 **BSc**, Dept. of Mathematics, Aristotle University of Thessaloniki, Greece

## POSITIONS HELD

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- 2016 – **Assistant Professor**, Dept. of Mechanical Engineering, University of Houston
- 2016 – **Adjunct Assistant Professor**, Dept. of Aerospace Engineering, Texas A&M University
- 2014 – 2016 **TEES Research Assistant Professor**, Dept. of Aerospace Engineering, Texas A&M University
- 2010 – 2014 **Research Associate & Lecturer**, Dept. of Aerospace Engineering, Texas A&M University
- 2005 – 2010 **Adjunct Assistant Professor**, Dept. of Applied Mathematics, University of Crete, Greece
- 2004 – 2005 **Research Associate**, Génie Civil et Mécanique, École Centrale de Nantes, France
- 2003 – 2004 **Research Associate**, Formation Physics, SINTEF Petroleum Research, Norway

## ACTIVITIES AND SERVICE

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### SCHOOLS:

- **CO-ORGANIZER**, IIMEC summer schools *Computational Materials Science Across Scales*, College Station, Texas, 18–29 July, 2016 / 13–18 July, 2015.
- **CO-ORGANIZER & INSTRUCTOR**, IIMEC summer schools *Advanced Material Systems: Experimentation & Modeling*, Thessaloniki, 3–9 July, 2016 / 13–18 July, 2015.
- **CO-INSTRUCTOR**, “Micromechanics” in 2nd IIMEC winter school *Computational Material Science across Scales*, College Station, Texas, 6–15 January, 2013.
- **INSTRUCTOR**, “Multifunctional Composites” in IIMEC summer school *Advanced Composite Materials*, Serres, Greece, 2–6 July, 2012.

### CONFERENCES:

- **ORGANIZER**, “Fatigue and Fracture of Active Materials and Structures” in *ASME 2017: International Mechanical Engineering Congress and Exposition (IMECE)*, Tampa, Florida, November 6D9, 2017.
- **CO-ORGANIZER**, “Behavior and Mechanics of Active Materials and Structures” in *Society of Engineering Science (SES)*, 52nd Annual Technical Meeting, College Station, 26–28 October, 2015.
- **CO-ORGANIZER**, “Computational Materials with Emphasis on Phase Transformation” in *Society of Engineering Science (SES)*, 52nd Annual Technical Meeting, College Station, 26–28 October, 2015.
- **CO-CHAIR**, “Fatigue & Fracture” in Symposium *Mechanics & Behavior of Active Materials*, SMASIS “Smart Materials Adaptive Structures & Intelligent Systems” Conference, Snowbird, Utah, 16–18 September, 2013.
- **CHAIR**, *Micromechanics and Modeling of Multifunctional Materials*, Mini-Symposium, Thessaloniki, Greece, 14–15 July, 2011.
- **CHAIR**, “Scaling and Size Effects”, *16th European Conference of Fracture (ECF 16)*, Failure Analysis of Nano and Engineering Materials and Structures, Alexandroupolis, Greece, July 3–7, 2006.

### PROFESSIONAL AFFILIATIONS:

- **THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)**.
- **THE MINERALS, METALS & MATERIALS SOCIETY (TMS)**.
- **SOCIETY OF ENGINEERING SCIENCES (SES)**.
- **ASM INTERNATIONAL**.
- **TEXAS MATERIALS MODELING NETWORK (TXMMN)**.
- **DIRECTOR OF OPERATIONS**, *Center for Intelligent Multifunctional Materials & Structures (CiMMS)*, Texas A&M Experimentation Station, 2014 – 2016.

**REVIEWER:**

- Journal of the Mechanics and Physics of Solids–International Journal of Plasticity–International Journal of Fracture–Acta Materialia–International Journal of Solids and Structures–Shape Memory and Superelasticity–Smart Materials and Structures–Journal of Intelligent Material Systems and Structures–International Journal of Fatigue–International Journal of Damage Mechanics–Physical Review Letters–Physical Review E.

**TEACHING EXPERIENCE (UNDERGRADUATE (U); GRADUATE (G))**

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**UNIVERSITY OF HOUSTON, 2016 –****DEPARTMENT OF MECHANICAL ENGINEERING:**

- SOLID MECHANICS (MECE 3369) (G)
- CONTINUUM MECHANICS (MECE 6377) (G)

**TEXAS A&M UNIVERSITY, 2012–2016****DEPARTMENT OF AEROSPACE ENGINEERING:**

- MICROMECHANICS (AERO 617 – MEMA 625) (G)
- CONTINUUM MECHANICS (AERO 603 – MEMA 602) (G)

**DEPARTMENT OF MECHANICAL ENGINEERING:**

- STATICS & PARTICLE DYNAMICS (MEMA 221) (U)

**UNIVERSITY OF CRETE, 2005–2010****DEPARTMENT OF APPLIED MATHEMATICS:**

- CONTINUUM MECHANICS (G)
- FLUID DYNAMICS (U)
- THEORY OF ELASTICITY AND VISCOELASTICITY (G)
- LINEAR ALGEBRA I (U)
- LINEAR ALGEBRA II (U)
- INTRODUCTION TO APPLIED MATHEMATICS I (U)
- DIFFERENTIAL CALCULUS II (U)
- DIFFERENTIAL CALCULUS I (U)

**PUBLICATIONS**

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**ARCHIVAL REFEREED JOURNAL PAPERS**

- (1) Iliopoulos, A.P., J.C. Steuben, T. Kirk, **Th. Baxevanis**, J.G. Michopoulos, D.C. Lagoudas, *Thermomechanical Failure Response of Notched NiTi Coupons*, accepted in International Journal for Solids and Structures.
- (2) Cox, A., B. Franco, S. Wang, **Th. Baxevanis**, I. Karaman and D. Lagoudas, *Predictive modeling of the constitutive response of precipitation hardened Ni-rich NiTi SMAs*, Shape Memory and Superelasticity, 3 (1), 9–23, doi:10.1007/s40830-016-0096-6, 2017 (invited article).
- (3) **Baxevanis, Th.**, A. Parrinello and D. Lagoudas, *On the driving force for crack growth during thermal actuation in Shape Memory Alloys*, Journal of the Mechanics and Physics of Solids, 89, 255–271, 2016.
- (4) Jape, S., **Th. Baxevanis** and D. Lagoudas, *Stable crack growth during thermal actuation of shape memory alloys*, Shape Memory and Superelasticity, 2 (1), 104–113, 2016.
- (5) Lester, B, **Th. Baxevanis**, Y. Chemisky and D. Lagoudas, *Review and perspectives: shape memory alloy composite systems*, Acta Mechanica, Review and Perspective in Mechanics, 225 (12), 3907–3960, 2015 (invited article).
- (6) **Baxevanis, Th.** and D. Lagoudas, *Fracture mechanics of Shape Memory Alloys: Review and Perspectives*, International Journal of Fracture, 191 (1-2), 191–213, 2015 (invited commemorative article for the 50th anniversary edition of the International Journal of Fracture).
- (7) Calhoun, C., R. Wheeler, **Th. Baxevanis** and D. Lagoudas, *Actuation fatigue life prediction of shape memory alloys under the constant-stress loading condition*, Scripta Materialia, 95, 58–61, 2015.
- (8) **Baxevanis, Th.**, C. Landis and D. Lagoudas, *On the effect of latent heat on the fracture toughness of Shape Memory Alloys*, Journal of Applied Mechanics, 81 (10), doi:10.1115/1.4028191, 2014.
- (9) Grabchenko, A.I, D.V. Romashov, D.O. Fedorenko, A.G. Mamalis, D. Lagoudas, V.A. Fedorovich and **Th. Baxevanis**, *Simulation of the effect of sintering on the integrity of diamond grains in grinding wheels*, Nanotechnology Perceptions, 10 , 42–53, 2014.

- (10) **Baxevanis, Th.**, A. Cox and D. Lagoudas, *Modeling of the precipitation effects on the effective thermo-mechanical response of NiTi Shape Memory Alloys*, Acta Mechanica, 225: 1167–1185, 2014 (invited article in honor of Professor George Weng being nominated with 2013 SES Prager Medal).
- (11) **Baxevanis, Th.**, C. Landis and D. Lagoudas, *On the fracture toughness of Shape Memory Alloys*, Journal of Applied Mechanics, 81 (4), doi:10.1115/1.4025139, 2014.
- (12) Tsalis, D., **Th. Baxevanis**, G. Chatzigeorgiou and N. Charalambakis, *Homogenization of elastoplastic composites with generalized periodicity in the microstructure*, International Journal of Plasticity, 51: 161–187, 2013.
- (13) **Baxevanis, Th.**, Parrinello, A. and D. Lagoudas, *On the fracture toughness enhancement due to stress-induced phase transformation in Shape Memory Alloys*, International Journal of Plasticity, 50: 158–169, 2013.
- (14) **Baxevanis, Th.**, Y. Chemisky and D. Lagoudas, *Finite element analysis of the plane-strain crack-tip mechanical fields in Shape Memory Alloys*, Smart Materials and Structures, 21 (9), art. no. 094012, 2012.
- (15) **Baxevanis, Th.** and D. Lagoudas, *A mode I fracture analysis of a center-cracked infinite Shape Memory Alloy panel under plane stress*, International Journal of Fracture, 175 (2): 151–166, 2012.
- (16) **Baxevanis, Th.** and M. Plexousakis, *On the effect of fiber creep-compliance in the high-temperature deformation of continuous fiber-reinforced ceramic matrix composites*, International Journal of Solids and Structures, 47: 2487–2497, 2010.
- (17) **Baxevanis, Th.** and N. Charalambakis, *A micromechanically based model for damage-enhanced creep rupture in continuous fiber-reinforced ceramic matrix composites*, Mechanics of Materials, 42 (5): 570–580, 2010.
- (18) **Baxevanis, Th.**, Th. Katsaounis and A. Tzavaras, *Adaptive finite element computations of shear band formation*, Mathematical Models and Methods in Applied Sciences, 20 (3): 423–448, 2010.
- (19) **Baxevanis, Th.**, M. Plexousakis, *Estimation of base settlement from the surface subsidence profile: Two-Dimensional plane field of displacements*, International Journal for Numerical and Analytical methods in Geomechanics, 33 (8): 1109–1121, 2009.
- (20) **Baxevanis, Th.**, *A coarse-grained model of thermally activated damage in heterogeneous media: Time evolution of creep rate*, Europhysics Letters, 83 (4): 46004, 2008.
- (21) **Baxevanis, Th.**, G. Pijaudier-Cabot and F. Dufour, *Bifurcation and creep rate-effects in a viscoelastic non-local damageable continuum*, European Journal of Mechanics - A/Solids, 27 (4): 548–563, 2008.
- (22) **Baxevanis, Th.**, and Th. Katsaounis, *Scaling of the size and temporal occurrence of burst sequences in creep rupture of fiber bundles*, Physical Journal B, 61 (2): 153, 2008.
- (23) **Baxevanis, Th.**, and Th. Katsaounis, *Burst avalanches and inter-occurrence times in creep rupture*, Europhysics Letters, 81 (2): 24001, 2008.
- (24) **Baxevanis, Th.**, and Th. Katsaounis, *Load capacity and rupture displacement in viscoelastic fiber bundles*, Physical Review E, 75: 046104, 2007.
- (25) **Baxevanis, Th.**, E. Papamichos, O. Flornes and I. Larsen, *Compaction bands and induced permeability reduction in Tuffeau de Maastricht calcarenite*, Acta Geotechnica, 1 (2): 123–135, 2006.
- (26) **Baxevanis, Th.**, F. Dufour and G. Pijaudier-Cabot, *Interface crack propagation in aging and time-dependent discrete models: Characterization of the size of the fracture process zone*, International Journal of Fracture, 141 (3–4): 561–571, 2006.
- (27) **Baxevanis, Th.**, and N. Charalambakis, *The role of material non-homogeneities on the formation and evolution of strain non-uniformities in thermoviscoplastic shearing*, Quarterly of Applied Mathematics, 62 (1): 97–116, 2004.
- (28) Charalambakis, N., and **Th. Baxevanis**, *Adiabatic shearing of non-homogeneous thermoviscoplastic materials*, International Journal of Plasticity, 20 (4–5): 899–914, 2004.

#### BOOK CHAPTERS

- (1) **Baxevanis, Th.**, A. Solomou, I. Karaman and D. Lagoudas, *Full-field micromechanics of precipitated shape memory alloys*, Micromechanics and Nanomechanics of Composite Solids, Eds. George Weng and Shaker Meguid, Springer Verlag, 2017.
- (2) **Baxevanis, Th.** and E. Papamichos, *Compactive cataclastic flow in Tuffeau de Maastricht calcarenite: mechanical deformation and permeability reduction* in Bifurcations, Instabilities, Degradation in Geomechanics, Springer Berlin Heidelberg, 95–126, 2007 (edited by George E. Exadaktylos and Ioannis G. Vardoulakis).

#### REFEREED CONFERENCE PROCEEDINGS PAPERS

- (1) Joy, K.J., A. Solomou, **Th. Baxevanis** and D. Lagoudas, *Predicting the Constitutive Response of Precipitation Hardened NiTiHf*, Proc. SPIE 10165, Behavior and Mechanics of Multifunctional Materials and Composites 2017, 101650F (April 11, 2017); doi:10.1117/12.2263501.
- (2) Phillips, F., **Th. Baxevanis** and D. Lagoudas, *Effect of Triaxiality on Phase Transformation in Ni<sub>50.8</sub>Ti Notched Cylindrical Bars*, 25th AIAA/AHS Adaptive Structures Conference, AIAA SciTech Forum, (AIAA 2017-1674), 2017.

- (3) Xu, L., **Th. Baxevanis** and D. Lagoudas, *A Finite Strain Constitutive Model for Martensitic Transformation in Shape Memory Alloys Based on Logarithmic Strain*, 25th AIAA/AHS Adaptive Structures Conference, AIAA SciTech Forum, (AIAA 2017-0731), 2017.
- (4) Jape, S., A. Solomou, **Th. Baxevanis**, D.C. Lagoudas, *Fracture toughness of shape memory alloy actuators: Effect of transformation-induced plasticity*, Proc. SPIE 9800, Behavior and Mechanics of Multifunctional Materials and Composites 2016, 98000C (April 21, 2016); doi:10.1117/12.2219495
- (5) Cox, A., **Th. Baxevanis** and D. Lagoudas, *Predictive modeling of precipitation effects on the actuation response of Ni-rich NiTi SMAs*, Proc. ICAST #093, Hague, Netherlands, October 6–8, 2014.
- (6) Cox, A., **Th. Baxevanis** and D. Lagoudas, *Finite element analysis of precipitation effects on Ni-rich NiTi Shape Memory Alloy response*, Materials Science Forum, 792: 65–71, 2014.
- (7) Jape, S., **Th. Baxevanis** and D. Lagoudas, *Stable crack growth during actuation in shape memory alloys*, Proc. SPIE 9058, Behavior and Mechanics of Multifunctional Materials and Composites, 905802, March 10, 2014.
- (8) Cox, A., **Th. Baxevanis** and D. Lagoudas, *Numerical evaluation of the effect of Ni<sub>3</sub>Ti<sub>4</sub> precipitates on the overall thermomechanical response of NiTi Shape Memory Alloys*, SMASIS2013–3183, Snowbird, Utah, 16–18, September, 2013.
- (9) Parrinello, A., **Th. Baxevanis** and D. Lagoudas, *On the energy release rate during global thermo-mechanically-induced phase transformation in Shape Memory Alloys*, SMASIS2013–3187, Snowbird, Utah, 16–18, September, 2013.
- (10) Tsalis, D., **Th. Baxevanis**, G. Chatzigeorgiou and N. Charalambakis, *Homogenization of elastoplastic composites with generalized periodicity in the microstructure*, Chania, Crete, 25–27 May, 10th HSTAM International Congress in Mechanics, 2013.
- (11) **Baxevanis, Th.**, C. Landis and D. Lagoudas, *Mode I steady crack-growth in superelastic Shape Memory Alloys*, Stone Mountain, 19–21 September, SMASIS2012–7934, 2012.
- (12) Parrinello, A., **Baxevanis, Th.**, D. Lagoudas and A. Cox, *A finite element study of stable crack-growth in superelastic Shape Memory Alloy*, Stone Mountain, 19–21 September, SMASIS2012-7912, 2012.
- (13) **Baxevanis, Th.** and D. Lagoudas, *On the path-dependency of the J-integral in a pseudoelastic Shape Memory Alloy*, Scottsdale, 18–21 September, SMASIS2011–5004, 2011.
- (14) **Baxevanis, Th.**, G. Pijaudier-Cabot, F. Dufour and R. Desiassyifayanty, *Localization in a viscoelastic non-local damageable continuum and the inherited size effect* in Computational Modelling of Concrete Structures, Proceedings of EURO-C 2006 Computational Modelling of Concrete Structures, Mayrhofen, Tyrol, Austria, 27th–30th March 2006 (edited by Gunther Meschke, Rene de Borst, Herbert Mang and Nenad Bicanic).
- (15) **Baxevanis, Th.**, F. Dufour and G. Pijaudier-Cabot, *Bifurcation and size effect in a viscoelastic non-local damageable continuum* in Failure Analysis of Nano and Engineering Materials and Structures, Proceedings of the 16th European Conference of Fracture (ECF 16), Alexandroupolis, Greece, 18 pages on CDROM, July 3-7, 2006 (edited by E. E. Gdoutos).
- (16) **Baxevanis, Th.**, F. Dufour and G. Pijaudier-Cabot, *Interface crack propagation in a viscoelastic discrete model* in Creep, shrinkage and durability of concrete and concrete structures, Nantes, 12–14 September, 125-130, 2005 (edited by G. Pijaudier-Cabot, B. Gérard and P. Acker).
- (17) **Baxevanis, Th.**, Th. Katsaounis and A. Tzavaras, *A finite element method for computing shear bands formations*, Proceedings of the 10th International Conference on Hyperbolic Problems: Theory, Numerics, Applications (HYP2004), Osaka, 13–17 September, 295–302, 2004.
- (18) **Baxevanis, Th.** and N. Charalambakis, *Shear stability and homogenization of stratified thermovisco-plastic materials*, Proceedings of the 4th GRACM Congress on Computational Mechanics, Patra, 27–29 June, 8 pages on CDROM, 2002.
- (19) Charalambakis, N. and **Th. Baxevanis**, *Non-homogeneities and non-uniformities in thermoviscoplastic shearing* in Plasticity, Damage and Fracture at Macro, Micro and Nano scales, Neat Press, 636–638, 2002 (edited by A.S. Khan and O. Lopez Pamies).

#### TECHNICAL REPORTS

- **Baxevanis, Th.**, E. Papamichos, O. Flornes, I. Larsen, and A. Lavrov, *Compaction bands and permeability reduction: experimental and numerical investigation of Tuffeau de Maastricht rock*, Report. No. 33.5359.00/01/04, Reg. No. 2004.041, 1-29, SINTEF Petroleum Research, Trondheim, Norway, 24 June 2004.

#### STUDENTS ADVISED

**DOCTORAL STUDENTS:**

- MENGQIAN ZHANG, 2017–today
- JASDEEP MAKKAR, 2016–today
- AFZAL HOSSAIN, 2016–today

**UNDERGRADUATE STUDENTS:**

- RUTVIK MEHTA, Aerospace Engineering, 2017–today

**TEXAS A&M UNIVERSITY****DOCTORAL STUDENTS:**

- BEHROUZ HAGHGOUYAN, Materials Science and Engineering, 2015–today
- JOBIN JOY, Aerospace Engineering, 2015–today
- MAHDI MOHAJERI, Materials Science and Engineering, 2015–today
- FRANCIS PHILLIPS, Aerospace Engineering, 2015–today
- LEI XU, Aerospace Engineering, 2014–today
- SAMEER JAPE, *On the fracture toughness and stable crack growth in shape memory alloys under combined thermo-mechanical loading*, Aerospace Engineering, 2013–2016

**MASTERS STUDENTS:**

- AUSTIN COX, *Finite Element Based Micromechanical Analysis of Precipitated NiTi Shape Memory Alloys*, Aerospace Engineering, 2012–2015
- ANTONINO PARINNELLO, *Effect of Phase Transformation on the Fracture Behavior of Shape Memory Alloys*, Aerospace Engineering, 2011–2013

**UNDERGRADUATE STUDENTS:**

- TANNER KIRK, Aerospace Engineering, 2013–2016
- GERARDO GARZA, Aerospace Engineering, 2015–2016

**EXCHANGE STUDENTS:**

- International Institute of Materials for Energy Conversion (IIMEC)  
SIYAO CHEN, ALEXANDROS SOLOMOU, DMITRO FEDORENKO, FLORENT CHARBONNIER, MAXIME DELAVENNE

**RESEARCH GRANTS**

- 
- **Co-I**, “*Adaptive Aerostructures for Revolutionary Civil Supersonic Transportation*”, National Aeronautics and Space Administration (NASA)–Aeronautics Research Mission Directorate (ARMD)–University Leadership Initiative (ULI), \$10,000K.
  - **SENIOR FACULTY**, “*Accelerating the Development of Phase Transforming Heterogeneous Materials: Application to High Temperature Shape Memory Alloys*”, Designing Materials to Revolutionize and Engineer our Future (DMREF), National Research Foundation (NSF), \$1,467K.
  - **Co-PI**, “*Elucidating Actuation-Induced Failure Mechanisms in High Temperature Shape Memory Alloys*”, Air Force Office for Scientific Research (AFOSR), \$462K.
  - **Co-PI**, “*Enabling Wearable Flexible Devices Using Shape Alloys*”, Intel, \$100K.
  - “*Fracture Mechanics in the Presence of Reversible Martensitic Transformation in High Temperature Shape Memory Alloys*”, National Science Foundation (NSF).
  - “*Fluid-Structure Interaction of Elastic Shells for Aerospace and Biomedical Applications*”, Qatar National Research Foundation (QNRF).
  - “*Nano-Precipitation Hardened High Temperature Shape Memory Alloys*”, Air Force Office for Scientific Research (AFOSR).
  - “*Synthesis, Characterization, and Modeling of Functionally Graded Multifunctional Hybrid Composites for Extreme Environments*”, Multidisciplinary University Research Initiative (MURI).
  - “*International Institute of Materials for Energy Conversion (IIMEC)*”, National Science Foundation (NSF).
  - “*Pythagoras*”, EPEAK I, Greek Ministry of Education.
  - “*Degradation and Instabilities in Geomaterials with Application to Hazard Mitigation (DIGA)*”, European Commission, 5<sup>th</sup> Framework Program.

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**INVITED, CONTRIBUTED TALKS AND PRESENTATIONS**


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- (1) *On the Experimental Determination of the Fracture Toughness in Shape Memory Alloys*, The 54th Society of Engineering Science (SES) Annual Technical Meeting, Boston, July 25–28, 2017.
- (2) *A Finite Strain Constitutive Model Considering Transformation Induced Plasticity for Shape Memory Alloys under Cyclic Loading*, 8th ECCOMAS Thematic Conference on Smart Structures and Materials, Madrid, Spain, June 5–8, 2017.
- (3) *Fracture Mechanics in Shape Memory Alloys*, 24th International Congress of Theoretical and Applied Mechanics (ICTAM 2016), Montréal, Canada, August 21–26, 2016.
- (4) *Thermomechanical Fracture in Shape Memory Alloys*, 21st European Conference on Fracture (ECF 21), Catania, Sicily, June 20–24, 2016.
- (5) *Thermomechanically-Induced Fracture in Shape Memory Alloys*, 52th Annual Technical Conference of Society of Engineering Sciences (SES), College Station, October 26–28, 2015.
- (6) *Finite Element Modeling of Actuation Induced Stable Crack Growth in Shape Memory Alloys*, 10<sup>th</sup> European Symposium on Martensitic Transformations (ESOMAT), Antwerp, Belgium, 14–18 September, 2015.
- (7) *Predictive Constitutive Modeling of Near-Equiatomic NiTi Shape Memory Alloys Considering Composition and Heat Treatment*, Applied Electromagnetic Engineering for Magnetic, Super-conducting, Multifunctional and Nanomaterials (JAPMED 9), Sofia, Bulgaria, 5–8 July, 2015.
- (8) *Ductile Fracture and Phase Transformations*, Workshop on Ductile Fracture, College Station, July 1–3, 2015.
- (9) *On the Fracture Response of Shape Memory Alloy Actuators*, MEMA, The TMS Middle East–Mediterranean Congress on Energy and Infrastructure Systems, Doha, January, 11–14, 2015.
- (10) *Numerical evaluation of the effect of Ni<sub>3</sub>Ti<sub>4</sub> precipitates on the overall thermomechanical response of NiTi Shape Memory Alloys*, SMASIS “Smart Materials Adaptive Structures & Intelligent Systems” Conference, Snowbird, Utah, 16–18, September, 2013.
- (11) *On the energy release rate during global thermo-mechanically-induced phase transformation in Shape Memory Alloys*, SMASIS “Smart Materials Adaptive Structures & Intelligent Systems” Conference, Snowbird, Utah, 16–18, September, 2013.
- (12) *Finite Element Analysis of the Precipitation Effects on the Transformation Behavior Characteristics of Ni-rich NiTi SMAs*, Applied Electromagnetic Engineering for Magnetic, Super-conducting, Multifunctional and Nanomaterials (JAPMED 8), Athens, Greece, 23–26 June, 2013.
- (13) *RVE Based Numerical Evaluation of the Effective Thermo-mechanical Behavior of NiTi Shape Memory Alloys With Coherent Precipitates*, The Pan American Congress of Applied Mechanics (PACAM), Houston, Texas, 22–24 May, 2013.
- (14) *On the energy release rate during global thermo-mechanically-induced phase transformation in Shape Memory Alloys*, SMASIS “Smart Materials Adaptive Structures & Intelligent Systems” Conference, Snowbird, Utah, 16–18, September, 2013.
- (15) *Fracture Toughness of Superelastic Shape Memory Alloys*, 49th Annual Technical Conference of Society of Engineering Sciences (SES), Georgia Tech, 10–12 October, 2012.
- (16) *Mode I steady crack-growth in superelastic Shape Memory Alloys*, SMASIS “Smart Materials Adaptive Structures & Intelligent Systems” Conference, Stone Mountain, 19–21 September, 2012.
- (17) *Finite Element Analysis of Crack-Tip, Plane-Strain Fields in Shape Memory Alloys under Small-Scale Nonlinearity*, 48th Annual Technical Conference of Society of Engineering Sciences (SES), Northwestern University, 12–14 October, 2011.
- (18) *Mechanical fields near a static crack in a Shape Memory Alloy*, SMASIS “Smart Materials Adaptive Structures & Intelligent Systems” Conference, Scottsdale, 18–21, September, 2011.
- (19) *A model for mode I plane stress fracture of a pseudoelastic Shape Memory Alloy*, Mini-Symposium “Micromechanics and modeling of Multifunctional Materials”, Thessaloniki, 14–15 July, 2011.
- (20) *Creep-enhanced damage in continuous fiber-reinforced composites*, Department of Mechanical Engineering, University of Thessaly, Volos, Greece, November, 2009.
- (21) *A micromechanical model for the high-temperature deformation of ceramic composites reinforced with long fibers*, Department of Materials Science and Engineering, University of Ioannina, Greece, November, 2009.
- (22) *On the effect of fiber creep-compliance in the high-temperature deformation of continuous fiber-reinforced composites*, Production Engineering and Management Department, Technical University of Crete, Chania, Greece, March, 2009.
- (23) *Bifurcation and creep rate effects in a viscoelastic non-local damageable continuum*, Department of Applied Mathematics, University of Crete, Heraklio, Greece, October, 2006.

- (24) *Bifurcation and size effect in a viscoelastic non-local damageable continuum*, 16th European Conference of Fracture (ECF 16), Failure Analysis of Nano and Engineering Materials and Structures, Alexandroupolis, Greece, July 3–7, 2006.
- (25) *Interface crack propagation in a viscoelastic discrete model*, 7th International conference on creep, shrinkage and durability of concrete and concrete structures, Nantes, 12–14 September, 2005.
- (26) *The effect of diffusion controlled dissolution processes on Irwin's length analyzed with a discrete model*, Génie Civil et Mécanique, École Centrale de Nantes, France, June, 2005.
- (27) *Compaction bands and permeability reduction: Experimental and numerical investigation of Tuffeau de Maastricht rock*, 16th ALERT-Geomaterials Graduate School, Aussois, France, October 14–16, 2004.
- (28) *Experimental and numerical investigation of compactions bands on Tuffeau de Maastricht calcarenite*, SINTEF, Trondheim, Norway, May, 2004.
- (29) *Pattern formation in thermo-visco-plastic shearing*, Department of Applied Mathematics, University of Crete, Heraklio, Greece, August, 2003.
- (30) *Shear stability and homogenization of stratified thermo-visco-plastic materials*, 4th GRACM Congress on Computational Mechanics, 27–29 June, Patra, Greece, 2002.

## OTHER CONFERENCES, WORKSHOPS AND SCHOOLS

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- (1) Michailidis, N, F. Stergioudi, D.T. Kountouras, H. Castenada, **Th. Baxevanis**, and D. Lagoudas, *Corrosion Fatigue of NiTi-based Shape Memory Alloys.*, The 54th Society of Engineering Science (SES) Annual Technical Meeting, Boston, July 25–28, 2017.
- (2) Phillips, F., **Th. Baxevanis**, and D. Lagoudas, *Influence of Stress Concentrations on Failure of Shape Memory Alloy Actuators.*, The 54th Society of Engineering Science (SES) Annual Technical Meeting, Boston, July 25–28, 2017.
- (3) Xu, L., **Th. Baxevanis**, A. Solomou, and D. Lagoudas, *A Logarithmic Strain rate based Constitutive Model for Phase Transforming Materials undergoing Cyclic Loading with Accumulating Irrecoverable Strains*, The 54th Society of Engineering Science (SES) Annual Technical Meeting, Boston, July 25–28, 2017.
- (4) Xu, L., **Th. Baxevanis** and D. Lagoudas, *A 3D finite strain constitutive model of shape memory alloys incorporating transformation induced plasticity under cyclic loading*, International Conference on Martensitic Transformations (ICOMAT 2017), Chicago, July 4–9, 2017.
- (5) Jape, S., **Th. Baxevanis**, D.C. Lagoudas, *Influence of Transformation Induced Plasticity on Failure of Shape Memory Alloy Actuators*, International Conference on Martensitic Transformations (ICOMAT 2017), Chicago, July 9–4, 2017.
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