

Simos Gerasimidis, Ph.D.

Assistant Professor
University of Massachusetts Amherst
College of Engineering
Department of Civil and Environmental Engineering
130 Natural Resources Road, Amherst, MA 01003
Tel: 917.833.7574
Email: sgerasimidis@umass.edu, simos.gerasimidis@gmail.com
Personal Webpage: <https://cee.umass.edu/faculty/simos-gerasimidis>
Research Group Webpage: <https://sgerasimidis.wixsite.com/mysite>

Appointments/Work Experience

- 2015-today **Assistant Professor**, University of Massachusetts, Amherst, MA, USA
- 2011-2015 **Post-doctoral Research Fellow**, Columbia University, New York, NY, USA
Supervision: Professor G. Deodatis
- 2007-2011 **Graduate Research Assistant**, Aristotle University of Thessaloniki, Thessaloniki, Greece
Supervision: Professor C.C. Baniotopoulos
- 2006-2007 **Structural Engineer**, Thornton Tomasetti Engineers, New York, NY, USA
Supervision: M. Squarzini
- 2005-2006 **Graduate Teaching Assistant**, MIT, Cambridge, MA, USA
Supervision: Professor J.J. Connor
- 2003-2004 **Structural Engineer**, Santiago Calatrava SA, Athens, Greece

Education

- 2011-2015 **Columbia University, NY, USA**
Post-Doctoral Research Fellow in Civil Engineering and Engineering Mechanics
Research Topic: **“Progressive Collapse and Resilience of Structures”**
Advisors: Prof. George Deodatis, Prof. Raimondo Betti
- 2007-2011 **Aristotle University of Thessaloniki, Greece**
Doctor of Philosophy (Ph.D.) in Civil Engineering with honors
Ph.D. Thesis Title: **“Alternate Load Path Methods for Disproportionate Collapse Analysis of Steel Structures via Direct Methods of Plasticity”**
Advisors: Prof. Charalampos Baniotopoulos, Prof. George Deodatis, Prof. Christos Bisbos
- 2005-2006 **MIT, MA, USA**
Master of Engineering in Civil and Environmental Engineering
Followed the track of High Performance Structures
Individual thesis title: **“Application of knee-bracing system on high-rise buildings”**
Group thesis title: **“Cable-stayed Steel Bridge over the Cape Cod Canal”**
Advisor: Prof. Jerome J. Connor
- 1999-2005 **Aristotle University of Thessaloniki, Greece**
Diploma, M. Eng., in Civil Engineering specialized in Structural Engineering
Thesis Topic: **“Study of the behavior of the Steel Roof of the Olympic Stadium in Athens because of possible cable failures”**
Advisor: Prof. Charalampos Baniotopoulos

Research Interests/Experience

- 2017-today **New architected mechanical metamaterials**
- Research in the field of new ultra-lightweight and high-strength and stiffness nano and micro-lattice architected mechanical metamaterials in collaboration with Prof. Bertoldi (Harvard University). The originality of the work is based on studying defective geometries aiming at 3D printing of metamaterials in large volumes for applications in engineering structures.
 - Research in the field of development new hierarchical designs for stents.
- 2017-today **Aging Infrastructure – Load rating procedures for deteriorated steel bridges**
- Experimental and computational project funded by the MassDOT (\$198,718) on the development of new load rating procedures of steel bridges with deteriorated steel beam ends.
- 2015-today **Structural Stability of Cylindrical and Conical Shells in the Elastic and Inelastic Range**
- Geometric imperfection sensitivity and residual stresses effects on the buckling of steel cylindrical and conical thin shells in collaboration with Prof. John Hutchinson from Harvard University. One part involves as an Industrial partner Vestas, the largest wind turbine company in the world and a second part involves natural gas pipelines under seismic ground motion in collaboration with Prof. Sextos from University of Bristol, UK.
- 2011-today **Progressive collapse of Buildings**
- Computational and analytical methods on progressive collapse and infrastructure resilience, funded by the Department of Homeland Security (DHS). This work involves a collaboration between academia and industry. The Industrial partner has been Weidlinger Associates INC. (now Thornton Tomasetti), a world leading applied research structural engineering firm based in New York City.
 - The originality of the work is based on stability induced progressive collapse, either due to individual-member (short-wave) buckling or global-system loss-of-stability mechanisms (long-wave) and the development of novel analytical methodologies to predict the governing collapse mechanism of damaged structures based on simple procedures.
- Progressive collapse and health monitoring of Bridges (2014-today)**
- Since April 2014, main researcher for a project on Progressive Collapse of Steel Highway Bridges, funded by the Federal Highway Administration (FHWA) in collaboration with Prof. Betti (Columbia University).
- Fire & Progressive collapse of Steel Structures (2014-today)**
- Since March 2014, main researcher for a project in the field of post-event fire considerations and Stability Induced Progressive Collapse Modes of Steel Buildings in collaboration with Prof. Garlock (Princeton University).
- Blast & Progressive collapse of Structures (2014-today)**
- Since January 2014, main researcher for a project in the field of Blast Analysis of Steel Buildings in collaboration with Prof. Deodatis (Columbia University) and Prof. Mullen (University of Mississippi).
- High Strength Tubular Towers for Steel Wind Turbines 2 - HISTWIN2 (2011-2012)**
- Member of WP2: “Optimization of foundation for high rise steel tower” and WP5: “Optimal range of application of different structural concepts”. Funded by the European Commission, Research Fund for Coal and Steel (RFCS).
- 2017-today **Podium Buildings under earthquake loading**
- Main goal of the project is to determine how vertical stiffness and mass discontinuities, and their severities, manifest themselves during a seismic event and to investigate system effects and the efficacy of the two-stage analysis paradigm.
- 2007-2011 **Ph.D. Work at Aristotle University of Thessaloniki**
- Addressed the assessment of the collapse load of steel frames for the event of initial damage of structural elements in the spirit of limit and shakedown analysis of damaged structures. Global robustness measures were developed for steel structures using the so-called direct methods of plasticity

coupled with FEM. The computational realization was based on a combination of a linear FEM research code with linear programming software.

European COST action TU0601, “Robustness of structures” (2010-2011)

- Member of Working group 2, “Modeling of exposures and vulnerability”.
- Part of the research group from Aristotle University representing Greece in the project.

European COST action C26, “Urban Habitat Constructions & Catastrophic Events” (2007-2010)

- Member of Working Group 4: “Risk assessment and catastrophic events”.
- Member of the committee on the study case of the volcano Vesuvius in Napoli, Italy.

2002 **Queen’s University, Kingston, ON, Canada**

- Built and prepared in laboratory concrete beams and worked on investigating the freeze – thaw durability of the bond of fiber reinforced polymer (FRP) sheets to concrete beams. Part of I.A.E.S.T.E. program (International Association for the Exchange of Students for Technological Experience).

2001-2004 **EU FP5 project “Rediscovering the Urban Realm and Open Spaces”**

- Built and worked on a new meteorological station with equipment measuring sound, light, humidity.

Publications

- 17 Referred Journal Publications.
- 4 Referred Journal Papers Under Review.
- 40 Conference Presentations.
- See list of Publications for detailed information.

Teaching

2015-2016 **UMass, Amherst, Assistant Professor**

Fall semester 2015, 2016, 2017: Structural Analysis CEE331.

Introductory structural analysis. Calculation of forces, moments, and deformations for axially loaded and flexural structures including trusses, beams, frames, arches, and cables. Classical and computer methods.

Spring semester 2016, 2017: Structural Stability CEE549.

Linear and nonlinear buckling of columns, beam-columns, frames and plates. Role of linearization in formulation of stability problems. Adjacent equilibrium, kinetic, imperfection and energy criteria for stability analysis. Variational approaches for formulating and solving buckling problems.

2008-2011 **Aristotle University of Thessaloniki, Steel Structures Teaching Assistant**

- Teaching assistant for the undergraduate courses: Steel Structures I & Steel Structures II. Assisted students with homework problems/material and performed oral exams for the individual project.

2006 **MIT, Steel Structures Teaching Assistant**

- Teaching assistant for the graduate course: Design of Steel Structures. Assisted students individually with homework problems.

Professional Experience - Consulting

2008-2011 **Licensed Structural Engineer, Thessaloniki, Greece**

- Designed from the conceptual stage to the construction drawings the two major interventions on the biggest Byzantine monuments of Thessaloniki, **the Rotunda and the Eptapyrgion**. Both interventions were part of a project improving the accessibility of Byzantine monuments, the design and the construction of which were funded by the European Union and the Greek Program of Public Works through the Ministry of Culture.
 - The Rotunda intervention included the complete design and supervision of a **Steel Truss Footbridge** spanning 19m above Byzantine antiquities, connecting today’s street level and the monument level, allowing for the long-awaited opening of the prestigious emperor’s entrance of the monument.

- The Eptapyrgion intervention included the complete design and supervision of two steel ramps through a Byzantine fortifying wall.
- Worked as a consulting engineer mainly on the design and supervision of construction of private buildings and other structures made of steel, concrete and timber. Cooperated with public agencies, design/architectural offices and construction companies.

2006-2007 **Structural Engineer, Thornton Tomasetti Engineers, New York, NY, USA**

- Worked in the team designing the new steel/concrete **New York Yankees Stadium** under the direction of Tom Scarangelo and Mike Squarzini, based in the Bronx, NY. Represented the firm in meetings with the contractor and the architect and in structural supervisions at the construction site. Supervised different parts of the stadium, including concrete foundation, concrete superstructure and steel construction on site. Part of the team that reviewed and checked all the concrete and steel shop drawings. Part of the team modeling and updating the geometry of the structure of the stadium using a structural building information modeling (BIM) system (TEKLA).
- Calculated and modeled the steel high-rise tower for the Chicago Spire project under the direction of Tom Scarangelo, architecturally designed by **Santiago Calatrava**, a 2000ft high tower at Chicago.
- Worked closely with managing principal Manny Velivassakis for the formation of HATS (Hellenic American Technical Society), based in New York City.
- Represented the firm in the annual Civil and Environmental Engineering Department Career Fair in 2007, at Massachusetts Institute of Technology (MIT).

2003-2004 **Structural Engineer, Santiago Calatrava SA, Athens, Greece**

- Calculated and remodeled in detail:
 - the emblematic Arch/Dome-like steel structures for the coverage of the main **Olympic Stadium and the Olympic Velodrome**,
 - the Steel superstructure and foundation of the **"AGORA"**,
 - the Steel **"Entrance Canopies"**,
 - the Frame-type Steel structure for the **"Nations' Wall"**,
 - the Tubular-Steel structure for the **"MONUMENT"**, and
 - the **cable-stayed Steel footbridge "CALATRAVA"**, at the **"KATEHAKI"** metro station (Project Owner ATTIKO METRO S.A.).
- Calculated and designed various special structures, like the light removable structure of the side-lateral shading system for the perimeter of the Velodrome and the construction of the rigid protective wall, made of steel framework and transparent polycarbonate panels, on the central island of the cycling tracks area of the Velodrome, various building structures (reinforced concrete) for the various new electro-mechanological installations (substations, workshops, electro shops, etc.), various new constructions of reinforced concrete arranged within the surrounding area of O.A.K.A., such as various retaining walls, high masts' foundations, water fountains, large/high external staircases and conducted studies for the structural adequacy and for the possible reinforcing requirements for various existing structures, inside the surrounding area of O.A.K.A., due to the addition of new steel and concrete structures upon the old ones.

Summer '00 **Intern, Design & Structure Engineering Company, Thessaloniki, Greece**

- Organized under the direction of the head engineer, the building of small technical plants for the Greek Telecommunication Organization (O.T.E.).

Professional Memberships - Service

- Member of the American Society of Civil Engineers (ASCE).
 - Member of the ASCE SEI Committee on Tall Buildings
 - Member of the ASCE EMI Committee on Stability
 - Member of the ASCE EMI Committee on Objective Resilience
- Member of the Structural Stability Research Council (SSRC).

- Member of the Task Group 2: Systems: Stability of Steel Systems, Especially Frames.
- Member of the Task Group 6: Extreme Loads: Stability under Extreme Loads.
- Member of the Progressive Collapse working group of the Council of Tall Buildings and Urban Habitat (CTBUH).
- Journal Reviewer:
 - Journal of Structural Engineering (ASCE).
 - Journal of Engineering Mechanics (ASCE).
 - Journal of Performance of Constructed Facilities (ASCE).
 - Journal of Constructional Steel Research (Elsevier).
 - Engineering Structures (Elsevier).
 - Structures (Elsevier).
 - Thin-Walled Structures (Elsevier).
 - Journal of Wind Engineering and Industrial Aerodynamics (Elsevier).
 - Journal of Building Engineering (Elsevier).
 - Structure and Infrastructure Engineering (Taylor and Francis).
 - Structural Engineering and Mechanics (Techno Press).
 - Advances in Structural Engineering (Sage).
- Member of the National Committee of Young Engineers (Greek Technical Chamber).
- Member of the Technical Chamber of Greece.
- Member of the Association of Civil Engineers of Greece.
 - Elected Member of the 15 Member National Board (July 2010 – September 2011)
- Certified Professional Licensed Civil Engineer in Greece (1st Degree Level).

Invited Lectures

- | | |
|------|---|
| 2017 | <p>Harvard University, John A. Paulson School of Engineering and Applied Sciences, Cambridge, MA, USA</p> <p>Invited lecture on “Progressive Collapse of Structures”.</p> |
| 2015 | <p>Johns Hopkins University, Department of Civil Engineering, Baltimore, MD, USA</p> <p>Invited lecture on “Infrastructure Resilience and Robustness of Structures to Extreme Events”.</p> |
| 2015 | <p>University of Illinois at Urbana-Champaign, Department of Civil and Environmental Engineering, Urbana, IL, USA</p> <p>Invited lecture on “Urban Infrastructure Resilience to Extreme Events”.</p> |
| 2015 | <p>UMass, Department of Civil and Environmental Engineering, Amherst, MA, USA</p> <p>Invited lecture on “Infrastructure Resiliency and Robustness of Structures”.</p> |
| 2015 | <p>New Jersey Institute of Technology (NJIT), Department of Civil and Environmental Engineering, Newark, NJ, USA</p> <p>Invited lecture on “Infrastructure Resilience”.</p> |
| 2013 | <p>MIT, Department of Civil and Environmental Engineering, Boston, MA, USA</p> <p>Invited lecture on “Infrastructure Resiliency and Robustness of Structures”.</p> |
| 2012 | <p>University of Birmingham, Department of Civil Engineering, UK</p> <p>School of Engineering, Invited lecture on “Robustness and progressive collapse of building structures”, for the workshop “Wind-Energy-Structures”.</p> |

Honors - Awards

- 2016 **Greek Diaspora Fellowship from the Stavros Niarchos Foundation**
One of the 20 awards for Greek-born scholars to create collaborative engagements between Greek and North American academics (\$20k).
- 2016 **Nominated for Distinguished Teaching Award, University of Massachusetts, Amherst**
Nominated by students for the Campus Wide Distinguished Teaching Award.
- 2015 **Open Education Initiative Award, University of Massachusetts, Amherst**
Awarded for the graduate class on Structural Stability - CEE549 (\$1000).
- 2011 **Post-Doctoral Scholarship from the Pan-Hellenic Association of Kappadocian Unions and the "Family of Filippos Savvopoulos"**
- 2010 **IRAKLITOS II PhD Scholarship**
3-year IRAKLITOS II PhD Scholarship from the Greek General Secretariat for Research and Technology

Awarded Research – Grants

- 2017 **Research Support Fund, University of Massachusetts, Amherst**
Awarded for a collaboration with Prof. Hutchinson at Harvard University (\$1000).
- 2017 **Development of Load Rating Procedures for Deteriorated Steel Beam Ends (MassDOT)**
The research work includes computational, experimental and analytical work (\$198,718).
- 2016 **Flex Grant for Teaching/Faculty Development, University of Massachusetts, Amherst**
Awarded for a collaboration with Prof. Hutchinson at Harvard University on the course Structural Stability (\$500).
- 2016 **Research Support Fund, University of Massachusetts, Amherst**
Awarded for a collaboration with Prof. Betti at Columbia University (\$1000).
- 2016 **Greek Diaspora Fellowship from the Stavros Niarchos Foundation**
One of the 20 awards for Greek-born scholars to create collaborative engagements between Greek and North American academics (\$12,000).
- 2016 **CEE Honors Research Assistant Fellowship, University of Massachusetts, Amherst**
Honors Undergraduate Fellowship for Student Tracy Donoghue (\$500).
- 2015 **Research Support Fund, University of Massachusetts, Amherst**
Awarded for a collaboration with Prof. Betti at Columbia University (\$1000).
- 2015 **CEE Honors Research Assistant Fellowship, University of Massachusetts, Amherst**
Honors Undergraduate Fellowship for Student Tracy Donoghue (\$500).

Student Research Supervision

Ph.D. Degree

- 2017-present G. Tzortzinis, UMass, Amherst, MA (**Primary Supervisor**)
Position: PhD Candidate, UMass, Amherst
- 2017-present F. Derveni, UMass, Amherst, MA (**Co-supervisor** with Prof. Peterman)
Position: PhD Candidate, UMass, Amherst
- 2016-present K. Yadav, UMass, Amherst, MA (**Primary Supervisor**)
Position: PhD Candidate, UMass, Amherst
- 2015-present P. Pantidis, UMass, Amherst, MA (**Primary Supervisor**)
Position: PhD Candidate, UMass, Amherst
- 2012-2016 J. Sideri, Columbia University, New York, NY (**Co-supervised** with Prof. Deodatis)
Position: Research Engineer, Thornton Tomasetti, New York, NY
-

2012-2016 A. Spyridaki, Columbia University, New York, NY (**Co-supervised** with Prof. Deodatis)
Position: Structural Engineer, SOM, New York, NY

M.S Degree

2017-present B. Knickle, UMass, Amherst, MA (**Primary Supervisor**)
Position: M.S. Student, UMass, Amherst

2015-2016 I. Centrangelo, UMass, Amherst, MA (**Co-supervised** with Prof. Arwade)
Position: M.S. Student, UMass, Amherst

B.S. Degree

2016-present T. Hill, UMass, Amherst, MA (**Primary Supervisor**)
Position: B.S. Student, UMass, Amherst

2015-2017 T. Donoghue, UMass, Amherst, MA (**Primary Supervisor**)
Position: PhD Candidate, UC Berkeley

2015-2017 B. Knickle, UMass, Amherst, MA (**Primary Supervisor**)
Position: M.S. Student, UMass, Amherst

2015-2016 A. Rock, UMass, Amherst, MA (**Co-supervised** with Prof. Arwade)
Position: M.S. Student, Princeton University

2015-2016 C. Zinner, UMass, Amherst, MA (**Co-supervised** with Prof. Brena)
Position: M.S. Student, Georgia Tech

Collaborators over the last 48 months

George Deodatis (Columbia University), John Hutchinson (Harvard University), Katia Bertoldi (Harvard University), Raimondo Betti (Columbia University), Sanjay Arwade (Umass), Ben Schafer (Johns Hopkins), Maria Garlock (Princeton University), Negar Khorasani (University at Buffalo), Kyoung Moon (Yale University), Christopher Mullen (University of Mississippi), Kara Peterman (Umass), Graham Cranston (SGH), Suparno Mukhopadhyay (IIT Kanpur), Luiz Vieira (Unicamp), Sergio Brena (Umass), Anastasios Sextos (University of Bristol, UK), Mohammed Ettouney (Thornton Tomasetti), Jenny Sideri (Thornton Tomasetti).

List of Publications

Journal Publications

1. Pantidis P., Gross A., Bertoldi K., **Gerasimidis S.**, Defect sensitivity of architected nanolattice metamaterials, (*in preparation*).
2. Psyrras N., **Gerasimidis S.**, Kwon O.S., Sextos A., Buckling capacity of buried natural gas pipelines subject to longitudinal seismic ground strains, (*in preparation*).
3. Yadav K.K., **Gerasimidis S.**, Bending of thin cylindrical shells: bifurcation and localization instabilities, (*submitted for review February 2017*).
4. Pantidis P., **Gerasimidis S.**, Progressive collapse of 3D steel composite buildings under interior gravity column loss, (*submitted for review December 2017*).
5. Psyrras N., Kwon O.S., **Gerasimidis S.**, Sextos A., Can a buried natural gas pipeline buckle locally during earthquake ground shaking? (*submitted for review February 2017*).
6. **Gerasimidis S.**, Khorasani N.E., Garlock M., Pantidis P., Glassman, J., (2017). Resilience of tall steel moment resisting frame buildings with multi-hazard post-event fire, *Journal of Constructional Steel Research*, 139, pp. 202-219.
7. Sideri J., Mullen C.L., **Gerasimidis S.**, Deodatis G., (2017). Distributed Column damage effect on progressive collapse vulnerability in steel buildings exposed to an external blast event, *ASCE Journal of Performance of Constructed Facilities*, 31(5): 04017077.
8. Pantidis P., **Gerasimidis S.**, (2017). New Euler-type progressive collapse curves for 2D steel frames: an analytical method, *ASCE Structural Engineering*, 143 (9): 04017113.
9. **Gerasimidis S.**, Knickle B., Moon K., Pantidis P., (2016). Diagrid Structural System for High-Rise Buildings: Applications of a simple stiffness-based optimized design, *International Journal of High-Rise Buildings*, 5(4), pp. 319-326.
10. **Gerasimidis S.**, Deodatis G., Yan Y., Ettouney M., (2016). Global instability induced failure of tall steel moment frame buildings, *ASCE Journal of Performance of Constructed Facilities*, 31(2): 04016082.
11. **Gerasimidis S.**, Sideri T., (2016). A new partial distributed damage method for progressive collapse analysis of buildings, *Journal of Constructional Steel Research*, Volume 119, pp. 233-245.
12. Stavridou N., Efthymiou E., **Gerasimidis S.**, Baniotopoulos C.C., (2015). Investigation of stiffening schemes effectiveness towards buckling stability enhancement in tubular steel wind turbine towers, *Steel and Composite Structures*, Volume 19 (5), pp. 324-331.
13. **Gerasimidis S.**, Baniotopoulos C.C., (2015). Progressive collapse mitigation of 2D steel moment frames - Assessment of the effect of different strengthening schemes, *Stahlbau*, Volume 84 (5), pp. 324-331.
14. **Gerasimidis S.**, Kontoroupi T., Deodatis G., Ettouney M., (2015). Loss-of-stability induced progressive collapse modes in 3D steel moment frames, *Structure and Infrastructure Engineering*, Volume 11 (3), pp. 334-344.
15. **Gerasimidis S.**, (2014). Analytical assessment of steel frames progressive collapse vulnerability to corner column loss, *Journal of Constructional Steel Research*, Volume 95, pp. 1-9.

16. **Gerasimidis S.**, Bisbos C.D., Baniotopoulos C.C., (2013). A computational model for full or partial damage of single or multiple adjacent columns in disproportionate collapse analysis via linear programming, *Structure and Infrastructure Engineering*, 10 (5), pp. 670-683.
17. **Gerasimidis S.**, Bisbos C.D., Baniotopoulos C.C., (2012). Vertical geometric irregularity assessment of steel frames on robustness and disproportionate collapse, *Journal of Constructional Steel Research*, Volume 74, pp. 76-89.
18. **Gerasimidis S.**, Ampatzis A., Bisbos C.D., (2012). A mathematical programming computational model for disproportionate collapse analysis of steel building frames, *Optimization Letters*, Volume 6, Number 3, pp. 525-535.
19. **Gerasimidis S.**, Baniotopoulos C.C., (2011). Evaluation of wind load integration in disproportionate collapse analysis of steel moment frames for column loss, *Journal of Wind Engineering and Industrial Aerodynamics*, Volume 99, Issue 11, pp. 1162-1173.
20. **Gerasimidis S.**, Baniotopoulos C.C., (2011). Steel moment frames column loss analysis: the influence of time step size, *Journal of Constructional Steel Research*, Volume 67, Issue 4, pp. 557-564.
21. **Gerasimidis S.**, Baniotopoulos C.C., (2011). Disproportionate collapse analysis of cable-stayed steel roofs for cable loss, *International Journal of Steel Structures*, Volume 11, Number 1, pp. 91-98.
22. **Gerasimidis S.**, Efthymiou E, Baniotopoulos C.C., (2009). On the application of robustness criteria to steel lattice masts, *POLLACK Periodica*, Volume 4, Number 1, pp. 17-28.

Conference publications-presentations

1. Psyrras N., Sextos A., Kwon O.S., **Gerasimidis S.**, (2018), Safety factors of buried steel natural gas pipelines under spatially variable earthquake ground motion, *11th U.S. National Conference on Earthquake Engineering*, Los Angeles, CA, USA.
2. **Gerasimidis S.**, Ettouney M, (2017), On the definition of resilience, *Engineering Mechanics Institute Conference*, San Diego, CA, USA.
3. Yadav K., **Gerasimidis S.**, (2017), Imperfection sensitivity of tall wind turbine thin steel cylindrical shell towers, *Engineering Mechanics Institute Conference*, San Diego, CA, USA.
4. Pantidis P., **Gerasimidis S.**, (2017), Progressive collapse response investigation of a 3D 20-story steel framed prototype building, *Engineering Mechanics Institute Conference*, San Diego, CA, USA.
5. Song J., Zhang G., Rahbar N., Arwade S.R., **Gerasimidis S.**, (2017), Experimental and computational microscale characterization of hollow sphere mechanics, *Engineering Mechanics Institute Conference*, San Diego, CA, USA.
6. Yadav, K., **Gerasimidis, S.**, Wind, J.W. (2017), On the investigation of the most critical shape imperfections for wind turbine tower shell structures, *SSRC Stability Conference*, San Antonio, TX, USA.
7. Pantidis, P., **Gerasimidis, S.** (2017), Loss-of-stability vs yielding-type collapse mode in 3D steel structures under a column removal scenario: an analytical method of assessing the collapse mode, *SSRC Stability Conference*, San Antonio, TX, USA.
8. **Gerasimidis, S.** (2017), Computational assessment of the residual stresses of a wind turbine tower steel shell and their effect on its buckling capacity, *SSRC Stability Conference*, San Antonio, TX, USA.

9. Papadopoulos S., Sextos A., Kwon O., **Gerasimidis S.**, Deodatis G. (2017), Impact of spatial variability of earthquake ground motion on seismic demand to natural gas transmission pipelines, *16th World Conference on Earthquake Engineering*, Santiago, Chile.
10. **Gerasimidis S.**, Ettouney M. (2016), Long Wave Buckling Instability Study for Progressive Collapse of Tall Steel Moment Frames, *Engineering Mechanics Institute Conference*, Nashville, TN, USA.
11. Pantidis, P., **Gerasimidis, S.** (2016), New Euler-type progressive collapse curves for 3D steel frames, *Engineering Mechanics Institute Conference*, Nashville, TN, USA.
12. Sideri, J., Mullen, C., **Gerasimidis, S.**, Deodatis, G. (2016), Progressive collapse vulnerability of 3D high rise steel buildings under external blast loading, *Engineering Mechanics Institute Conference*, Nashville, TN, USA.
13. Pantidis, P., **Gerasimidis, S.** (2016), New Euler-type progressive collapse curves for steel frames, SSRC Stability Conference, Orlando, FL, USA.
14. Stavridou, N., Efthymiou, E., **Gerasimidis, S.** & Baniotopoulos, C.C. (2015), On the Buckling Analysis of Steel Tubular Wind Turbine Towers with vertical and horizontal stiffeners, Proc. ICOCEE, Cappadocia, Nevsehir, Turkey, 2015.
15. Torres M., **Gerasimidis S.**, Deodatis G., Ettouney M. (2015), Long Wave Buckling Instability Study for Progressive Collapse of Tall Steel Moment Frames, *Engineering Mechanics Institute Conference*, Stanford, CA, USA.
16. Spyridaki A., **Gerasimidis S.**, Deodatis G., Ettouney M. (2015), Analytical identification of progressive collapse modes of 3D steel frames through new Euler-type progressive collapse curves, *Engineering Mechanics Institute Conference*, Stanford, CA, USA.
17. Sideri J., **Gerasimidis S.**, Deodatis G., Ettouney M. (2015), The effect of partial distributed damage on the progressive collapse mechanisms and collapse loads of high-rise steel buildings, *Engineering Mechanics Institute Conference*, Stanford, CA, USA.
18. Sideri J., Mullen C., **Gerasimidis S.**, Deodatis G. (2015), Progressive collapse vulnerability of 3D high rise steel buildings under external blast loading, *Engineering Mechanics Institute Conference*, Stanford, CA, USA.
19. Mullen C., Sideri J., **Gerasimidis S.**, Deodatis G. (2015), Influence of beam-column parameter interdependency on SDOF based damage mapping in blast impact region of a high-rise steel building, *Engineering Mechanics Institute Conference*, Stanford, CA, USA.
20. Baniotopoulos, C.C., Stavridou, N., Efthymiou, E. & **Gerasimidis, S.** (2014), On the Buckling Analysis of Steel Tubular Wind Energy Towers: Improving their Structural Response by Stiffening Rings, Proc. XIX SMIE2014, Mexico, 12-16.11.2014, 650-660.
21. Yan Y., **Gerasimidis S.**, Deodatis G., Ettouney M., (2014). Global loss-of-stability progressive collapse of steel moment frame structures under column loss, *Engineering Mechanics Institute Conference*, Hamilton, ON, Canada.
22. Yan Y., **Gerasimidis S.**, Deodatis G., Ettouney M., (2014). Global-loss-of-stability progressive collapse mechanisms of 3D steel frame buildings, *CESARE '14, Civil Engineering for Sustainability & Resilience*, Amman, Jordan.
23. Stavridou N., Efthymiou E., **Gerasimidis S.**, Baniotopoulos C.C., (2014). Improvement of steel wind turbine tower structural response with implementation of steel stiffening rings, *CESARE '14, Civil Engineering for Sustainability & Resilience*, Amman, Jordan.

24. **Gerasimidis S.**, Kontoroupi T., Deodatis G., Ettouney M., (2013). Progressive collapse of 3D steel moment frames due to loss-of-stability phenomena, *84th Shock & Vibration Symposium*, Atlanta, GA, USA.
25. **Gerasimidis S.**, Yan Y., Deodatis G., Ettouney M., (2013). A global loss of stability study for progressive collapse of tall steel moment frames, *84th Shock & Vibration Symposium*, Atlanta, GA, USA.
26. **Gerasimidis S.**, Spiridaki A., Deodatis G., Ettouney M., (2013). An analytical tool for the identification of the type of progressive collapse mode of steel moment frames subjected to corner column removal, *84th Shock & Vibration Symposium*, Atlanta, GA, USA.
27. Yan Y., **Gerasimidis S.**, Deodatis G., Ettouney M., (2013). A study on the global loss of stability progressive collapse mechanisms of steel moment frames, *ICOSSAR 2013*, New York, USA.
28. Sideri E., **Gerasimidis S.**, Deodatis G., Ettouney M., (2013). Ductile progressive collapse mechanisms of steel moment frames, *ICOSSAR 2013*, New York, USA.
29. Spyridaki A., **Gerasimidis S.**, Deodatis G., Ettouney M., (2013). A new analytical method on the comparison of progressive collapse mechanisms of steel frames under corner column removal, *ICOSSAR 2013*, New York, USA.
30. Kontoroupi T., **Gerasimidis S.**, Deodatis G., Ettouney M., (2013). A 3D nonlinear progressive collapse study of multi-story steel frame buildings accounting for loss of stability, *ICOSSAR 2013*, New York, USA.
31. Stavridou N., Efthymiou E., **Gerasimidis S.**, Baniotopoulos C.C., (2013). Modeling of the structural response of wind energy towers stiffened by internal rings, *10th HSTAM International Congress on Mechanics*, 25-27 May 2013, Chania, Crete, Greece.
32. **Gerasimidis S.**, Deodatis G., Ettouney M., (2012). New Findings in progressive collapse of buildings & global structural integrity of damaged structures, *83rd Shock & Vibration Symposium*, New Orleans, LA, USA.
33. **Gerasimidis S.**, Bisbos C., Baniotopoulos C.C., (2011). Disproportionate collapse analysis of steel buildings – a plastic limit approach, *National Conference of Steel Structures*, Volos, Greece.
34. Tsalikis C., **Gerasimidis S.**, Baniotopoulos C.C., (2011). Progressive collapse of steel moment frames under localized fire, *Eurosteel 2011*, Budapest, Hungary.
35. Kuhlmann U., Rolle L, Izzuddin B.A., Pereira M., Bisbos C., **Gerasimidis S.**, (2011). Fact sheet of steel structures, *Proceedings of the Final Conference of COST Action TU0601, Robustness of Structures*, pp.85-98, Prague, Czech Republic.
36. Efthymiou E., **Gerasimidis S.** & Baniotopoulos C.C., (2009). On the structural response of steel telecommunication lattice masts for wind loading and combined effects, *EACWE 5*, Florence Italy.
37. **Gerasimidis S.**, Efthymiou E. & Baniotopoulos C.C., (2009). Optimum outrigger locations of high-rise steel buildings for wind loading, *EACWE 5*, Florence Italy.
38. Kalliagra S., **Gerasimidis S.**, Malindretos M., (2009). Sustainability considerations and standards for structural timber, *3RD CIB International Conference on Smart and Sustainable Built Environments*, Delft.
39. Giannakas N., Tegos I., **Gerasimidis S.**, (2009). On the reinforcement of circular section columns under axial loading and biaxial bending of earthquake resistance structures, *Earthquake and Tsunami*, Istanbul, Turkey.
40. Kalliagra S., **Gerasimidis S.**, Malindretos M., (2008). How really sustainable is timber construction, *RETBE*, Alexandria, Egypt.
41. **Gerasimidis S.**, Konstantopoulos K., Manikas C., Baniotopoulos C.C., (2008). Trusses Classification According to Robustness Criteria, *Eurosteel 2008*, Graz, Austria.

Other Publications

1. **Gerasimidis S.**, Sideri T., Spydiraki, A., Baniotopoulos C.C., (2014). Steel moment frames under column loss progressive collapse scenarios – Damage propagation and the effect of column buckling to the overall structural integrity, Festschrift gewidmet Prof. Peter Schaumann, Institut fur Stahlbau, Leibniz Universitat hannover, pp.31-37.
2. M.Eng. Group Thesis (2006): Cable-stayed Steel Bridge over the Cape Cod Canal, MIT.
3. M.Eng. Individual Thesis (2006): Application of knee-bracing system on high-rise buildings, MIT.
4. Diploma Thesis (2005): Study of the behavior of the Steel Roof of the Olympic Stadium in Athens because of possible cable failures, Aristotle University of Thessaloniki.

Press

- **Gerasimidis S.**, (10 August 2008). The secrets of bird's nest, *TO BHMA*, (in Greek).
- **Gerasimidis S.**, Vandoros A., Blaxodimos G., Kalliagra S., (2008) Independent towers, *Construction subjects*, (in Greek).