CURRICULUM VITAE

COSTAS PAPADIMITRIOU, Ph.D.
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EDUCATION

1990 **Ph.D.** in Applied Mechanics, California Institute of Technology, Pasadena, USA
1985 **M.Sc.** in Applied Mechanics, California Institute of Technology, Pasadena, USA
1984 **Diploma** in Mechanical Engineering, University of Patras, Greece

EMPLOYMENT HISTORY

5/2005- Present, Professor, Dept. of Mechanical Engineering, University of Thessaly (UTH), Greece
1/2000- 5/2005, Associate Professor, Dept. of Mechanical Engineering, UTH, Greece
3/1999-12/2000, Instructor, Dept. of Mechanical Engineering, UTH, Greece
2/2014- 2/2014, Visiting Professor, Division of Engineering and Applied Science, Caltech, USA
2/2011- 9/2011, Visiting Scientist, Computational Science and Engineering Laboratory, ETH Zurich
9/2010- 1/2011, Visiting Professor, Department of Civil Engineering, K.U.Leuven, Belgium
1/2003- 3/2003, Visiting Professor, Inst. of Fundamental Technological Res, Polish Acad. of Sciences
10/1998- 2/1999, Senior Research Engineer, Division of Engineering and Applied Science, Caltech
5/1998- 9/1998, Greek Military Service, Kalamata, Greece (Compulsory)
8/1996- 5/1998, Instructor in Civil Engineering, Div of Engineering and Applied Science, Caltech
8/1996- 5/1998, Researcher, Jet Propulsion Laboratory (JPL)
10/1995- 7/1996, Visiting Scholar, Dept Civil & Structural Eng., Hong Kong Univ. of Science & Techn.
6/1994- 9/1995, Visiting Assistant Professor, Div of Engineering and Applied Science, Caltech
1/1991- 5/1994, Assistant Professor, Dept of Civil Engineering, Texas A&M University
10/1990-12/1990, Research Associate, Division of Engineering and Applied Science, Caltech
10/1984- 9/1990, Teaching/Research Asst., Division of Engineering and Applied Science, Caltech

ADMINISTRATIVE POSITIONS

European Level

- Executive Vice-President of the European Association for Structural Dynamics (EASD) (2011-2017)
- Member of the Senior Advisory Board of the European Association for Structural Dynamics (EASD) (2017-)
- Greek representative in the management committees of the European Cooperation in Science and Technology actions on
    - *"Quantifying the Value of Structural Health Monitoring* (*E-COST Action TU1402)"* (14/05/2014 – 13/05/2018).
    - *"Quality Specifications for Roadway Bridges, Standardization at a European Level (BridgeSpec)* (*E-COST Action TU1406)"* (13/11/2014 – 12/11/2018).

National (Greek) Level

- Member of the Sectoral Scientific Council on Engineering Sciences of the Greek National Council of Research and Technology (Oct. 2014 - 2016)

University of Thessaly (UTH)

1. Member of the Steering Committee of the UTH Institute of Smart Production and Smart Cities (2019 – present)
2. Member of the Committee for the Financial Growth of UTH (2005 – 2008)
3. Member of UTH Senate (Sept. 2003 – August 2005)
4. Member of the Research Committee of UTH (2002 – 2005)
5. Chairman of the Committee for the Re-structuring of UTH Administration Services (2004-2005)

Department of Mechanical Engineering in UTH

6. Director of System Dynamics Laboratory (2001 – present)
7. Chairman of the Department (Sept. 2003 – August 2005)
8. Vice-Chairman of the Department (Sept. 2001 – August 2003)
9. Director of Graduate Studies (Sept. 2001 – 2005)
10. Chairman of the Internal Dept. Evaluation Committee (2011 – 2012) and member (2007 – July 2010)
11. Co-ordinator of Div. of Mechanics, Materials & Manufacturing Processes (2002-03, 2007-08, 2011-12, 2014-15, 2017-18)
12. Member of the Committee for Academic and Student Affairs (1999 – 2003)

RESEARCH INTERESTS

- Uncertainty Quantification (UQ) and Propagation in Engineering and Applied Sciences
- Bayesian Learning of Physics-based Models of Systems; Bayesian Optimal Experimental Design
- Smart Cities: Data-Driven Modeling, UQ, Health Monitoring, Diagnosis, Risk, Reliability, Resilience, Maintenance of City Infrastructure Components
- System Identification, Inverse Methods in Mechanics, Finite Element Model Validation & Verification
- Probabilistic Structural Dynamics, Computational Stochastic Dynamics
- Structural Health Monitoring (SHM) using Physics-based Models, Damage Identification
- Structural Reliability and Risk, Remaining Lifetime Estimation, Condition-based Maintenance Decision-Making
- Optimization under Stochastic Loads & System Uncertainty, Robust & Reliability-Based Design Optimization
- Applications focus on Civil, Earthquake, Mechanical and Vehicle Engineering;
- Applications of Bayesian UQ in Other Disciplines (through collaboration with colleagues from these disciplines): Computational Fluid Dynamics; Bio-mechanics; Molecular Dynamics; Nanotechnology; Dynamics Processes on Networks (Cardiovascular arterial, Biological and Epidemiology networks)

HONORS AND AWARDS

- 2018 Editor's Award for the best paper ("Bayesian annealed Sequaential Importance Sampling: An Unbiased Version of Transitional Markov Chain Monte Carlo" by S. Wu, P. Angelikopoulos, C. Papadimitriou and P. Koumoutsakos) published in the 2018 Volume of the ASCE-ASME Journal of Risk and Uncertainty in Engineering System, Part B: Mechanical Engineering.
- 2014 EASD (European Association of Structural Dynamics) Senior Award in Computational Structural Dynamics
- Associate Member, Sectoral Scientific Council on Engineering Sciences, Greek Council of Research and Technology (2014-2016)
- Research Excellence Award (Aristeia), General Secretariat of Research and Technology (2012-2015)
- National Science Foundation - Research Initiation Award (1993 - 1997)
- Harold Helwig Fellowship in Structural Engineering (1989)
- Research/Teaching Assistantship, Caltech (1984 – 1990)
- Greek National Scholarship Fellow (1980 - 1984)

ASSOCIATE EDITOR FOR SCIENTIFIC JOURNALS

- ASCE Journal of Engineering Mechanics (2009 – 2017)
- International Journal of Reliability and Safety (2005 -)
- Frontiers in Built Environment: Section "Structural Sensing" (Sept 2015 -)

EDITORIAL BOARD MEMBER OF SCIENTIFIC JOURNALS

- Journal of Structural Control and Health Monitoring (Sept. 2008 -)
- Structural Monitoring and Maintenance (2014 -)
- Journal of Smart Cities (New Journal; 2015 - present)
- Sensors: Section "Physical Sensors" (Sept 2019 -)

SEMI-PLENARY / KEYNOTE / INVITED LECTURES

Semi-Plenary Lectures

1. Bayesian Optimal Experimental Design Framework for Data-Driven Uncertainty Quantification of Dynamical Systems. *14th International Conference on Vibration Problems (ICOVP 2019)*, 1-4 September, 2019, Crete, Greece.
2. Hierarchical Bayesian Modelling Framework for Data-Driven Uncertainty Quantification in Engineering Simulations. *International Conference on Uncertainty Quantification in Computational Sciences and Engineering* (*UNCECOMP 2019)*, June 24 – 26, 2019, Crete, Greece.
3. Computational Challenges in Bayesian Uncertainty Quantification of Large-Order Models. *International Conference on Uncertainty Quantification in Computational Sciences and Engineering* (*UNCECOMP 2015)*, May 25 – 27, 2015, Crete Island, Greece.
4. Bayesian Uncertainty Quantification and Propagation in Structural Dynamics. *EURODYN 2014*, June 30 – July 2, 2014, Porto, Portugal.

Keynote Lectures

1. Bayesian Framework for Data-Driven Uncertainty Quantification in Engineering Simulations. *K.U.Leuven, Department of Civil Engineering*, May 25, 2019.
2. Data-driven Bayesian Uncertainty Quantification and propagation in Structural Dynamics. *Workshop on Interface of Models, Algorithms and Data*, July 17-18, 2018, IACM-FORTH, Heraklion, Crete, Greece.
3. Challenges in Bayesian Uncertainty Quantification and Propagation for Structural Dynamics Simulations. *Frontiers of Uncertainty Quantification in Engineering (FrontUQ)*, Sept. 6-8, 2017, Munich Germany.
4. Information-Driven Modelling of Structures using a Bayesian Framework. *7th Int. Conf. on Experimental Vibration Analysis for Civil Engineering Structures (EVACES2017)*, July 12-14, 2017, San Diego, California (invited).
5. Bayesian Uncertainty Quantification in Molecular Dynamics Simulations. *ECCOMAS 2012*, Vienna September 10-15, 2012.
6. Bayesian Uncertainty Quantification and Propagation in Structural Dynamics Simulations using Monitored Data. *6th International ASRANet Conference for Integrating Structural Analysis, Risk and Reliability*, London, Croydon (UK), 2-4 July, 2012.
7. Finite Element Model Validation and Predictions using Dynamic Reduction Techniques. *ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN2011)*, Corfu, Greece, 25-28 May, 2011.
8. Structural Model Updating using Vibration Measurements. *ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN2009)*, Rhodes, Greece, 22-24 June, 2009.
9. Multi-Objective Framework for Structural Modeling Consistent with Data. *ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN2007)*, Rethymno, Crete, Greece, 13-16 June 2007.

Invited Lectures

10. Bayesian Framework for Data-Driven Uncertainty Quantification in Engineering Simulations. *K.U.Leuven, Department of Civil Engineering*, May 25, 2019.
11. Data-driven Bayesian Uncertainty Quantification and propagation in Structural Dynamics. *Workshop on Interface of Models, Algorithms and Data*, July 17-18, 2018, IACM-FORTH, Heraklion, Crete, Greece.
12. Bayesian Framework for Uncertainty Quantification in Structural Dynamics Simulations. **Distinguished Guest Series**, *Clemson University, Glenn Department of Civil Engineering*, February 27, 2017, USA.
13. Data-Driven Uncertainty Quantification in Structural Dynamics Simulations. *Institute of Sound and Vibration Research (ISVR), University of Southampton*, March 31, 2016, Southampton, UK.
14. Bayesian Uncertainty Quantification Framework for Complex Models in Structural Dynamics. **Distinguished CECE Seminar Series**, *University of Central Florida, Department of Civil, Environmental, and Construction Engineering*, February 2, 2015, USA.

15. Bayesian Uncertainty Quantification and Propagation in Structural Dynamics Simulations using Vibration Measurements. *EPFL, School of Architecture, Civil and Environmental Engineering*, March 27, 2015, Switzerland.
16. Model Identification and Finite Element Model Updating of Metsovo Bridge. *DAAD DeGrieLab Summer School (Hybrid and Virtual Experimentation for Infrastructure Lifecycle Maintenance and Natural Hazard Resilience)*, May 11, 2015, Aristotle University, Thessaloniki, Greece.
17. Computationally Efficient Tools for Bayesian Model Selection and Parameter Estimation in Structural Dynamics. *Santa Maria University (Chile)*, November 2014, Chile.
18. Bayesian Uncertainty Quantification for Structural Dynamics Simulations. *Caltech*, February 2014, Pasadena, USA.
19. Bayesian Uncertainty Quantification and Propagation in Structural Dynamics Simulations. *Bauhaus Summer School 2014, Forecast Engineering: Global climate change and the challenges of the built environment, ERASMUS Lifelong Learning Programme – Intensive Programmes (IP)*, Weimar, August, 18-29, 2014.
20. Bayesian Uncertainty Quantification in Structural Dynamics Simulations using High Performance Computing Techniques. *Bayesian Workshop*, March 21-22; and Short Course on Mid-Frequency Methods for Vibration and Acoustics, March 22-23; Southampton, UK, 2012.
21. Optimal Sensor Placement for Parameter Estimation in Dynamic System. *Session G-1 - Advances in Smart Materials/Sensors/Actuators/MEMS/NEMS of Symposium G "Emboding Intelligence in Structures and Integrated Systems" of the 4th International Conference on "Smart Materials, Structures and Systems"*, Montecatini Terme, Italy, June 10-15, 2012.
22. Finite Element Model Validation and Predictions using Dynamic Reduction Techniques. *OPTEC Seminars on Optimization in Engineering, K.U. Leuven*, September 29, 2010.
23. Optimization Algorithms for System Integration. *Session C-2 Integration Technologies of Sympocium C "Emboding Intelligence in Structures and Integrated Systems" of the 3rd International Conference on "Smart Materials, Structures and Systems,"* Acireale, Sicily, Italy, June 8-13, 2008.
24. Optimal Experimental Design for Structural Identification and Response Predictions. *Dept. of Civil Engineering, Universidad Tecnica Federico Santa Maria*, Valparaiso, Chile, August 2003.
25. Optimal Sensor and Actuator Methodology for Structural Identification. *Inst. of Fundamental Technological Research (IPPT), Polish Academy of Sciences (PAN)*, Warsaw, January 2003.
26. Statistical Model Updating and Damage Detection Methodology. *Dept. of Dynamics of Complex Systems (DDCS), IPPT-PAN*, Warsaw, January 2003.
27. Modal Model Identification in Structural Dynamics with Applications. *DDCS-IPPT*, Warsaw, January 2003.
28. Methodology for Updating Robust Reliability using Measured Dynamic Data. *DDCS-IPPT*, Warsaw, February 2003.
29. Applications of Genetic Algorithms in Structural Health Monitoring. *Session on "Computational Methods in Stochastic Mechanics and Reliability Analysis II" of 5th World Congress on Computational Mechanics*, Austria, 2002.
30. Health Monitoring of Pipe Networks Using a Probabilistic Framework. *8th International Conference on Structural Safety and Reliability (ICOSSAR'01)*, Newport Beach, California, 2001
31. Modal Identification and Model Updating in Structural Dynamics. *Institute of Engineering Seismology and Earthquake Engineering (ITΣAK)*, Thessaloniki, 2000
32. Optimal Sensor Location Methodology for Structural Model Updating. *Department of Civil and Environmental Engineering, UCLA*, 1999
33. Methodology for Optimal Sensor Locations for Model Parameter Identification in Structures. *Division of Engineering and Applied Science, Caltech*, 1998
34. Structural Model Updating Software Development in IMOS (Integrated Modelling of Optical Systems). *Jet Propulsion Laboratory (JPL-NASA)*, Pasadena, 1997
35. Stochastic Response Characteristics of Structures Subjected to Earthquake Excitation. *Department of Civil Engineering, Texas A&M University*, 1990

Invited Lectures at National Level (Greece)

36. Bridge Health Monitoring using Vibration Measurements. *National Workshop on Bridge Maintenance and Repair*, Athens, Greece, 29 January 2013.
37. Methods and Software for Health Monitoring of Bridges using Vibration Measurements. *Workshop on Earthquake Protection of Bridges*, Thessaloniki, Greece, 13 February 2009.

38. Identification of the Dynamic Characteristics of Structures based on Vibration Measurements. *Workshop on Seismic Risk and Upgrading of Structures*, Agrinio, 22-23 February, 2003.
39. Optimization, Leakage Detection, and Optimum Sensor Location in Water Pipe Networks: I. Theory. *Training Workshop on Management and Modeling of Water Pipe Networks*, Volos, 2002.

Other Lectures

More than 100 lectures in international conferences

CURRENT COLLABORATION WITH EUROPEAN/INTERNATIONAL RESEARCH GROUPS

- Hong Kong University of Science and Technology, Prof Lambros Katafygiotis. On hierarchical Bayesian modeling in structural dynamics; Sequential Bayesian filtering for input-state-parameter estimation; Fatigue monitoring of wind turbines using self-powered wireless sensor networks; since Jan 2017.
- ETH-Zurich, Prof Petros Koumoutsakos. On uncertainty quantification in molecular dynamics, nanotechnology and CFD, since Febr 2011.
- Brown University, Prof Tasos Matzavinos. On uncertainty management for identifying arterial wall mechanical properties and detecting pathologies in blood vessel in cardiovascular arterial networks, since June 2016.
- ETH-Zurich, Prof Eleni Chatzi. On input-state and fatigue estimation using vibration measurements in structural dynamics, since Jan 2014.
- Tufts University (USA), Prof Babak Moaveni. On Bayesian hierarchical modeling for structural health monitoring, since Jan 2014.
- Bauhaus Universität Weimar, Prof Volkmar Zabel. On Bayesian uncertainty quantification for updating systematic damage description models, since Jan 2015.
- Santa Maria University (Chile), Prof Hector Jensen. On Bayesian model updating and updating reliability predictions in structural dynamics, since Sept 2012.
- Technische Universität München, Papaioannou, I., Straub, D. On sequential importance sampling for structural reliability, since Sept 2013.
- K.U.Leuven, Prof Geert Lombaert. On Bayesian model updating, input-state estimation, and optimal sensor placement in structural dynamics, since Sept 2010.
- Aristotle University, Prof Sotirios Natsiavas. On uncertainty quantification in nonlinear structural dynamics with applications to vehicles, since March 2012.
- University of Western Macedonia (Greece), Prof Dimitrios Giagkopoulos, On validation of uncertainty quantification and propagation techniques using experiments from nonlinear laboratory models of a vehicle-suspension-wheel system, since March 2011.

EVALUATOR OF RESEARCH PROPOSALS FOR THE FOLLOWING ORGANIZATIONS

1. K.U.Leuven Research Council (2019)
2. Christian Doppler Research Association (CDG) (Febr2019 & Febr. 2016). External evaluator of CD Laboratory for Structural Strength Control of Lightweight Constructions, Linz, Austria.
3. EPSRC – Engineering and Physical Sciences Research Council (UK) (2017)
4. ERC - European Research Council Consolidation Grant (2017,2016,2015,2014), Products & Processes Engineering
5. ETH - Zurich Research Commission (2018, 2014, 2012)
6. Christian Doppler Research Association (CDG), Austria (2013)
7. Swiss National Science Foundation, Div of Mathematics, Physical and Engineering Sciences (2012)
8. Romanian National Research Council (2011, 2012)
9. Flanders Research Foundation (FWO), Belgium (2010, 2011)
10. Research Council, Katholieke Universiteit Leuven, Belgium
11. Greek General Secretariat of Research and Development
12. Greek Ministry of Education (ΥΠΕΠΘ)
13. Greek National Scholarships Foundation (IKY) – Program ESA/Greek Trainees
14. Research Committee, University of Patras, «Κ. Καραθεοδωρή 2003, 2013» Program

15. "National Technical University of Athens (Basic Research Program) ("Λεύκιππος", "Κωνσταντίνος Καραθεοδωρή", "ΠΕΒΕ 2007", "ΠΕΒΕ 2008", "ΠΕΒΕ 2009", "ΠΕΒΕ 2011")

COORDINATOR/LECTURER OF INTERNATIONAL COURSES

1. Coordinator and instructor of IMAC (International Modal Analysis Conference) one-day pre-conference course on "Bayesian Uncertainty Quantification: Theory, Computational Tools and Applications", Coordinators/Instructors: Costas Papadimitriou and Babak Moaveni, 17 attendees, Orlando, Florida, Febr. 26, 2019.
2. Coordinator and instructor of IMAC (International Modal Analysis Conference) one-day pre-conference course on "Bayesian Uncertainty Quantification: Theory, Computational Tools and Applications", Coordinators/Instructors: Babak Moaveni and Costas Papadimitriou, 10 attendees, Garden Grove, California, Jan. 29, 2017.
3. Coordinator and instructor of IMAC (International Modal Analysis Conference) one-day pre-conference course on "Bayesian Uncertainty Quantification: Theory, Computational Tools and Applications", Coordinators/Instructors: Costas Papadimitriou and Babak Moaveni, 22 attendees, Orlando, Florida, Febr. 1 2015.
4. Coordinator of EMI2017 (Engineering Mechanics Institute Conference) one-day pre-conference course on "Bayesian Model Updating and Uncertainty Quantification: Theory, Computational Tools, and Applications", Coordinators/Instructors: Babak Moaveni and Costas Papadimitriou, 8 attendees, San Diego, May 22, 2017.
5. Coordinator of EMI-PMC 2016 (Joint Engineering Mechanics Institute Conference and Probabilistic Mechanics and Reliability Conference) one-day pre-conference course on "Bayesian Model Updating and Uncertainty Quantification: Theory, Computational Tools, and Applications", Coordinators/Instructors: Babak Moaveni and Costas Papadimitriou, 8 attendees, Vanderbilt, May 22, 2016.
6. Coordinator and instructor of Advanced School on "Identification Methods for Structural Health Monitoring and Residual Lifecycle Assessment", Coordinators: Eleni Chatzi and Costas Papadimitriou, 50 attendees, International Centre for Mechanical Sciences, Udine, Italy, June 3-7, 2013.

PARTICIPATION IN EUROPEAN-NATIONAL FACULTY SELECTION COMMITTEES

- Member of assessment committee for faculty selection in "Stochastic Static and Dynamic Structural Mechanics" of Civil Engineering Department of Katholik University of Leuven
- Member of several assessment committees for faculty selection in Greek Universities: National Technical University of Athens, Aristotle University, University of Patras, University of Krete, University of Western Macedonia.

PARTICIPATION IN INTERNATIONAL-EUROPEAN-NATIONAL PH.D. DEFENSE COMMITTEES

1. Stochastic Approaches to Selection of Fatigue Crack Growth Model for Life Cycle Assessment, Ph.D. Defense of Sharmistha Chowdhury, Bauhaus-Universitat Weimar, Germany, Expected 2020.
1. Vibration-based Structural Health Monitoring by Novelty Detection and Feature Extraction Techniques, Ph.D. defense of Alireza Entezami, University of Milan, Department of Civil Engineering, 2020.
2. Uncertainty Quantification and Propagation in Dynamic Structural Systems, PhD defense of Mingming Song, Tufts University, Department of Civil Engineering, 2019.
3. Vibration-Based System Identification and Damage Detection for Structural Components of Wind Turbines, PhD defense of Yaowen Ou, ETH-Zurich, Department of Civil, Environmental and Geomatic Engineering, Oct. 2019. Role: Co-Examiner.
4. Bayesian Uncertainty Quantification for Large-Scale Applications in Engineering and Life Sciences, PhD defense of Lina Kulakova, ETH Zurich, Department of Mechanical and Process Engineering, Aug. 2017. Role: Co-Examiner.
5. Bayesian Techniques for Inverse Uncertainty Quantification, PhD defense of Joseph B. Nagel, ETH-Zurich, Department of Civil, Environmental and Geomatic Engineering, Jan. 2017. Role: Co-Examiner.
6. Performance Assessment and Prognosis for Civil Infrastructure based on Model Falsification Reasoning, PhD defense of Romain Pasquier, EPFL, Applied Computing and Mechanics Laboratory, 2015.
7. Probabilistic Vibration-Based Health Monitoring of Civil Structures, PhD defense of Iman Behmanesh, Tufts University, Department of Civil Engineering, 2015.
8. Uncertainty Quantification in Finite Element Model Updating, PhD defense of Ellen Simoen, K. U. Leuven, Department of Civil Engineering, 2013.

9. Force Identification on Structural Dynamics, PhD defense of Eliz-Mari Lourens, K. U. Leuven, Department of Civil Engineering, 2012.
10. Sensor Placement Methods and Evaluation Criteria in Structural Health Monitoring, PhD defense of Dongsheng Li, University of Siegel, 2011.
11. Stochastic Model Validation of Structural Systems, PhD defense of Dr. Barbara Goller, Innsbruck University, 2011.

- Member of numerous Ph.D. Defense committees in Civil and Mechanical Engineering Departments of Greek Universities: National Technical University of Athens, Aristotle University, University of Patras.

PROFESSIONAL SERVICE

Reviewer for:

- AIAA Journal
- Advanced Engineering Informatics
- Advances in Structural Engineering
- Aerospace Science and Technology
- American Control Conference
- ASCE Journal of Aerospace Engineering
- ASCE Journal of Engineering Mechanics
- ASCE Journal of Structural Engineering
- ASME Journal of Vibration and Acoustics
- ASME Journal of Computational and Nonlinear Dynamics
- ASME Journal of Mechanical Design
- ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering
- ASME Journal of Dynamic Systems Measurement and Control
- Archive of Applied Mechanics
- Bulleting of Earthquake Engineering
- Computational Mechanics
- Computer Methods in Applied Mechanics & Engineering
- Computers and Structures
- Computer-Aided Civil and Infrastructure Engineering
- Engineering Structures
- Earthquake Engineering and Structural Dynamics
- Experimental Mechanics
- Earthquake Engineering and Engineering Vibration
- Earthquake Spectra
- Frontiers in Build Environment – Structural Sensing
- IEEE Control Systems Magazine
- Int. Journal for Uncertainty Quantification
- International Journal of Mechanical Sciences
- Int. Journal of Non-Linear Mechanics
- International Journal of Reliability and Safety
- International Journal of Structural Engineering and Mechanics
- Int. Journal of Solids and Structures
- International Journal of Sustainable Material and Structural Systems
- Journal of Applied Mechanics
- Journal of Computing and Information Science in Engineering
- Journal of Computational Physics
- Journal of Smart Cities
- Journal of Sound and Vibrations
- Journal of Vibration and Control
- Journal of Vibration and Acoustics
- Journal of Structural Control and Health Monitoring
- Journal of Smart Materials and Structures
- Journal of Wind Engineering and Industrial Aerodynamics
- Mechanical Systems and Signal Processing
- Ocean Engineering-
- Physical Review Fluids
- Probabilistic Engineering Mechanics
- Reliability Engineering and System Safety
- Smart Structures and Systems
- Structural Engineering and Mechanics
- Soil Dynamics and Earthquake Engineering
- Structural Health Monitoring
- The Open Construction and Building Technology Journal
- Structural Safety
- McGraw Hill
- Prentice Hall
- Wiley

Chair/Member of Technical Committees:

1. **Chair**: Dynamics Committee of the ASCE Engineering Mechanics Institute (EMI) (June 2012 – Sept 2014)
2. **Chair**: Subcommittee on "Updating and Identification with Experiments and Inverse Problems" of the Technical Committee of European Association of Structural Dynamics (EASD) (2009 - 2017)
3. **Member**: SEM Model Validation and Uncertainty Quantification Technical Division (2012 -)
4. **Member**: ASCE EMI Structural Health Monitoring and Control Committee (2012 -)
5. **Member**: ASCE EMI Dynamics Committee (2000 -)
6. **Member**: ASCE EMI Probabilistic Methods Committee (2000 -)
7. **Member**: Structural Health Monitoring Task Group Committee of ASCE Engineering Mechanics Division (2000-)

8. **Member**: Technical Committee of European Association of Structural Dynamics – EASD. Member of the Subcommittee: Theoretical, Computational and Experimental Research. Member of the Subcommittee: Updating and Identification with Experiments and Inverse Problems. Member of the Subcommittee: Applications in Engineering Practice (2009 - 2017)
9. **Member**: Stochastic Methods in Structural Engineering Committee (Subcommittee: System Identification and Structural Control) of International Association for Structural Safety and Reliability (IASSAR) (2004 - 2009)
10. **Member**: International Society for Structural Health Monitoring of Intelligent Infrastructure (IALCCE) (2012 -)

Member of Scientific (SC) /Technical (TC) Committees & Advisory (AB)/Editorial (EB) Board /Local Organizing Committee (LOC) of Conferences:

1. **SC**: ASCE-EMI-PMC2020 (Engineering Mechanics Institute & Probabilistic Mechanics and Reliability) Conference, Columbia University, NYC, USA, May 26-29, 2020.
2. **EMISC**: EMI International Conference, Lyon, France, July 3-5, 2019.
3. **SC:** International Conference on Structural Dynamics (EURODYN 2020), Athens, Greece, June 22-24, 2020.
4. **SC**: EMI International Conference, Lyon, France, July 3-5, 2019.
5. **SC**: 14th International Conference on Vibration Problems (ICOVP 2019), Crete, Greece, 1-4 September, 2019.
6. **SC**: 7th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2019), Crete, Greece, 22-24 June, 2019.
7. **SC**: 3rd International Conference on Uncertainty Quantification in Computational Sciences and Engineering (UNCECOMP 2019), Crete, Greece, 22-24 June, 2019.
8. **SC**: International Conference of Smart Cities – Present and Future, Beijing, China, May 26-28, 2018.
9. **SC:** 7th World Conference on Structural Control and Monitoring (7WCSCM), Qingdao, China, July 22-25, 2018.
10. **SC:** Frontiers of Uncertainty Quantification in Engineering (FrontUQ), Munich, Germany, September 6-8, 2017.
11. **SC**: 6th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2017), Rhodes Island, Greece, 15-17 June, 2017.
12. **SC**: 2nd International Conference on Uncertainty Quantification in Computational Sciences and Engineering (UNCECOMP 2017), Rhodes Island, Greece, 15-17 May, 2017.
13. **SC**: 10th International Conference on Structural Dynamics (EURODYN 2017), Rome, Italy, Sept. 10-13, 2017.
14. **LOC**: ECCOMAS Congress 2016, Crete, Greece, June 5-10, 2016.
15. **SC**: ASCE-PMC2016 (Probabilistic Mechanics and Reliability) Conference, Vanderbilt, USA, May 22-25, 2016.
16. **AB**: Symposium P "Embodying Intelligence in Structures and Integrated Systems" of the 5th International Conference on "Smart and Multifunctional Materials, Devices and Structures", Perugia, Italy, June 5-10, 2016.
17. **SC**: 8th GRACM International Congress on Computational Mechanics, Volos, Greece, July 12-15, 2015.
18. **EB**: The Fourth International Conference on Soft Computing Technology in Civil, Structural and Environmental Engineering Computing (CIVIL-SOFT-COMP 2015), Prague, Czech Republic, 1-4 September 2015.
19. **SC**: ASCE-EMI 2013 Conference, Stanford, USA, June 16-19, 2015.
20. **SC**: 1st International Conference on Uncertainty Quantification in Computational Sciences and Engineering (UNCECOMP 2015), Crete Island, Greece, 25-27 May, 2015.
21. **SC**: 5th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2015), Crete Island, Greece, 25-27 May, 2015.
22. **SC**: ICASP 12 (12th International Conference on Applications of Statistics and Probability in Civil Engineering), Vancouver, Canada, July 12-15, 2015.
23. **SC**: 6th World Conference on Structural Control and Monitoring (6WCSCM), Barcelona, Spain, 15-17 July, 2014.
24. **Program Committee**: International Symposium on Uncertainty Quantification and Stochastic Modeling (Uncertainties 2014), Insa de Rouen, France, 7-11 July, 2014.
25. **SC**: ASCE 2013 Conference, Hamilton, Ontario, Canada, August 5-8, 2014.
26. **SC**: 9th International Conference on Structural Dynamics (EURODYN 2014), Porto, Portugal, June 30 – July 2, 2014.
27. **SC**: ASCE-ICVRAM-ISUMA 2014 joint conference (Second International Conference on Vulnerability and Risk Analysis and Management - ICVRAM2014 & Sixth International Symposium on Uncertainty Modelling and Analysis - ISUMA2014), University of Liverpool, UK, 29th June - 2nd July, 2014.
28. **SC**: ASCE-EMI 2013 Conference, Evanston, USA, 4-7 August, 2013.

29. **EB**: CSC2013 (The Third International Conference on Soft Computing Technology in Civil, Structural and Environmental Engineering), Cagliari, Sardinia, Italy, 3-6 September 2013.
30. **SC**: 4th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2013), Kos, Greece, June 12-14, 2013.
31. **SC**: III South-East European Conf. on Computational Mechanics (SEECCM III), Kos, Greece, June 12-14, 2013.
32. **SC**: 11th ASCE Joint Specialty Conference on Probabilistic Mechanics and Structural Reliability (PMC), Notre Dame, USA, June 2012.
33. **AB**: Symposium G "Emboding Intelligence in Structures and Integrated Systems-II" of the 4th International Conference on "Smart Materials, Structures and Systems", Montecatini Terme, Italy, June 10-15, 2012.
34. **SC**: 8th International Conference on Structural Dynamics (EURODYN 2011), Leuven, Belgium, July 2011.
35. **EB**: CSC2011 (The Second International Conference on Soft Computing Technology in Civil, Structural and Environmental Engineering), Chania, Crete, Greece, September 2011.
36. **SC**: 3rd International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2011), Corfu, Greece, May 2011.
37. **SC**: 5th European Workshop on Structural Health Monitoring, Sorrento, Naples, Italy, July-August 2010.
38. **SC**: 2nd International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2009), Rhodes, Greece, June 2009.
39. **SC**: 3rd Hellenic Conference of Earthquake Engineering and Seismology, November 2008, Athens.
40. **SC**: 4th European Workshop on Structural Health Monitoring, Cracow, Poland, July 2008.
41. **AB**: Symposium C "Emboding Intelligence in Structures and Integrated Systems" of the 3rd International Conference on "Smart Materials, Structures and Systems", Acireale, Sicily, Italy, June 8-13, 2008.
42. **AB**: 1st International Conference on Computational Dynamics and Earthquake Engineering (COMPDYN 2007), Rethymnon, Krete, Greece, June 2007.
43. **SC**: 3rd European Workshop on Structural Health Monitoring, Granada, Spain, July 2006.
44. **SC**: 5th International Conference on Computational Stochastic Mechanics, Rhodes, Greece, June 2006.
45. **TC**: Int. Conf. on Structural Safety & Reliability (ICOSSAR05), Rome, June 2005
46. **SC**: 4th International Conference on Computational Stochastic Mechanics, Corfu, June 2002.
47. **SC**: First National Conference of Recent Advances in Mechanical Engineering (ASME), Patra, Sept. 2001.

Conference Co-Chairman & Conference Organization Committee

1. **Co-Chairman**: EURODYN 2020 conference, Athens, Greece, June 2020
2. **Co-Chairman**: EURODYN 2014 conference, Porto, Portugal, June 2014
3. **Organizing Committee**: *24th Summer School Conference on Dynamical Systems and Complexity*, University of Thessaly, Volos, Greece, July 12-21, 2017.
4. **Organizing Committee**: Symposium on *Making Rational Decisions under Uncertainty and Model Complexity (A celebration in Honor of Prof James L. Beck Career and Tenure at Caltech)*, Caltech, Pasadena, February 3-4, 2017.
5. **Organizing Committee**: 8th GRACM International Congress on Computational Mechanics, Volos, Greece, July 12-15, 2015

Conference Symposia/Mini-Symposia (MS)/Session Organization

1. **MS** on "Vibration-based Health Monitoring, Damage Identification and Residual Lifetime Estimation" for *The* Seventh *International Symposium on Life-Cycle Civil Engineering (IALCCE 2020)*, Shanghai, China, 27-30 October, 2020 (co-organisers Reynders/Lombaert/Chatzi/Papadimitriou).
2. **MS** on "Structural Health Monitoring" *XI International Conference on Structural Dynamics (EURODYN 2020)*, June 22-24, Athens, Greece. (co-organizers Papadimitriou / Moaveni / Lombaert).
3. **MS** on "Uncertainty Quantification in Vibration based Monitoring and Structural Dynamics Simulations" for *Uncertainty Quantification in Computational Science and Engineering (UNCECOMP 2019)*, Krete, Greece, June 24-26, 2017 (co-organizers Dertimanis / Chatzi / Papadimitriou)
4. **MS** on "Bayesian Analysis of Numerical Models" for *Uncertainty Quantification in Computational Science and Engineering (UNCECOMP 2019)*, Krete, Greece, June 24-26, 2019 (co-organizers Papaioannou / Straub / Papadimitriou)

5. **MS** on "Structural Identification and Damage Detection" for the *ASCE Engineering Mechanics Institute (EMI2019)* Conference, Caltech, Pasadena, USA, June 18-21, 2019 (co-organisers Chatzi/Papadimitriou/Moaveni).
6. **MS** on "Bayesian Analysis of Numerical Models" for *U13th Int. Conf. on Applications of Statistics and Probability in Civil Engineering (ICASP 2019)*, Seoul, Korea, May 26-30, 2019 (co-organizers Papaioannou / Straub / Papadimitriou)
7. **Special Session** on "Data-driven computational structural mechanics of existing and damaged structures" for the The 9th International Conference on Computational Methods (ICCM2018), Rome, Aug. 6-10, 2018 (Co-organizers Chatzi/Gattulli/Papadimitriou/Worden)
8. **MS** on "Structural Identification and Damage Detection" for the *ASCE Engineering Mechanics Institute (EMI2018)* Conference, MIT, Cambridge, USA, May 29 – June 1, 2018 (co-organisers Chatzi/Papadimitriou/Moaveni).
9. **MS** on "Vibration-based Health Monitoring, Damage Identification and Residual Lifetime Estimation" for the *6th International Symposium on Life-Cycle Civil Engineering (IALCCE 2018)*, Ghent, Belgium, 28-31 October, 2018 (co-organisers Reynders/Lombaert/Chatzi/Papadimitriou).
10. **Session** on "Uncertainty Quantification and Propagation in Structural Dynamics" 36th *International Modal Analysis Conference (IMAC 2018)*, Orlando, Florida, February 12-15, 2018 (co-organisers Moaveni/Papadimitriou).
11. **MS** on "Structural Identification and Damage Detection" for the *ASCE Engineering Mechanics Institute (EMI2017)* Conference, UCSD, USA, June 4-7, 2017 (co-organisers Chatzi/Papadimitriou).
12. **MS** on "Uncertainty Quantification in Vibration based Monitoring and Structural Dynamics Simulations" for *Uncertainty Quantification in Computational Science and Engineering (UNCECOMP 2017)*, Rhodes, Greece, June 15-17, 2017 (co-organizers Chatzi/Papadimitriou)
13. **MS** on "Bayesian Analysis of Numerical Models" for *Uncertainty Quantification in Computational Science and Engineering (UNCECOMP 2017)*, Rhodes, Greece, June 15-17, 2017 (co-organizers Papaioannou/Straub/Papadimitriou)
14. **MS** on "Surrogate Models for Uncertainty Management in Complex Structural Systems" for *6th International Conference on Computational Dynamics and Earthquake Engineering (COMPDYN2017)*, Kos, Greece, June, 2017 Rhodes, Greece, June 15-17, 2017 (co-organizers Jensen/Papadimitriou/Au)
15. **MS** on "Structural Identification" for the *EURODYN 2017* of the European Association of Structural Dynamics, September 10–13, Rome, Italy, 2017 (co-organisers Papadimitriou/Conte/Morassi).
16. **Session** on "Recent Advances in the Development and Application of Meta-Models for Uncertainty Quantification of Complex Dynamical Systems" for the *ICOSSAR 2017*, August 6-10, Vienna, Austria, 2017 (co-organisers Jensen/Papadimitriou/Valdebenito).
17. **Session** on "Uncertainty Quantification and Propagation in Structural Dynamics" 35th *International Modal Analysis Conference (IMAC 2016)*, Orange Grove, California, Jan 30 - Febr 2, 2017 (co-organisers Moaveni/Papadimitriou).
18. **MS** on "Structural Health Monitoring in Earthquake Engineering" for the *16th World Conference on Earthquake Engineering (16WCEE),* Santiago, Chile, 9-13 January, 2017 (co-organisers Astroza/Conte/Papadimitriou)
19. **MS** on "Modelling and Inverse Methods in Nonlinear Dynamical Systems" for the *ECCOMAS Congress 2016*, Crete, Greece, June 5-10, 2016 (co-organisers Natsiavas/Papadimitriou/Chatzi/Giagopoulos).
20. **MS** on "Uncertainty Quantification in Engineering Simulations" for the *ASCE-EMI International Conference (EMI2016 International)*, Metz, France, Oct. 25-27, 2016 (co-organisers Papadimitriou/Chatzi).
21. **MS** on "Structural Identification and Damage Detection" for the *ASCE Engineering Mechanics Institute Conference (EMI2016) and Probabilistic Mechanics and Reliability Conference (PMC2016)*, Vanderbilt, USA, May 22-25, 2016 (co-organisers Chatzi/Papadimitriou/Au).
22. **Session** on "Uncertainty Quantification and Propagation in Structural Dynamics" 34th *International Modal Analysis Conference (IMAC 2016)*, Orlando, Florida, January 25-28, 2016 (co-organisers Moaveni/Papadimitriou).
23. **MS** on "Vibration-based Health Monitoring, Damage Identification and Residual Lifetime Estimation" for the *5th International Symposium on Life-Cycle Civil Engineering (IALCCE 2016)*, Delft, The Netherlands, 16-19 October, 2016 (co-organisers Reynders/Lombaert/Chatzi/Papadimitriou).
24. **MS** on "Structural Identification and Damage Detection" for the *ASCE Engineering Mechanics Institute (EMI2015)* Conference, Stanford, USA, June 16-19, 2015.

25. **MS** on "Structural System Identification and Health Monitoring" 12th International Conference on Applications of Statistics and Probability in Civil Engineering (ICASP), Vancouver, Canada, July 12-15, 2015.
26. **MS** on "Uncertainty Quantification in Engineering Simulations" 8th GRACM International Congress on Computational Mechanics, Volos, Greece, July 12-15, 2015.
27. **Session** on "Computing Methods for Uncertainty Quantification in Engineering Simulations" The Fourth International Conference on Soft Computing Technology in Civil, Structural and Environmental Engineering Computing (CIVIL-SOFT-COMP 2015), Prague, Czech Republic, 1-4 September 2015.
28. **MS** on Uncertainty Quantification and Management in Structural Dynamics, International Conference on Uncertainty Quantification in Computational Sciences and Engineering (UNCECOMP 2015), Crete Island, Greece, 25-27 May, 2015.
29. **MS** on Bayesian Analysis of Numerical Models, International Conference on Uncertainty Quantification in Computational Sciences and Engineering (UNCECOMP 2015), Crete Island, Greece, 25-27 May, 2015.
30. **Session** on "Uncertainty Quantification and Propagation in Structural Dynamics" 33rd *International Modal Analysis Conference (IMAC 2015)*, Orlando, Florida, February 2015.
31. **MS** on "Vibration-based Health Monitoring, Damage Identification and Residual Lifetime Estimation" for the *4th International Symposium on Life-Cycle Civil Engineering (IALCCE 2016)*, Tokyo, Japan, 16-19 November, 2014.
32. **MS** on "Structural Identification and Damage Detection" for the *ASCE Engineering Mechanics Institute (EMI2014)* Conference, Hamilton, Ontario, Canada, August 5-8, 2014
33. **MS** on "Structural Identification and Structural Health Monitoring" *EURODYN 2014* of the European Association of Structural Dynamics, June 30– July 2, Port, Portugal, 2014
34. **MS** on "Uncertainty Quantification and Propagation in Engineering Systems" ASCE-ICVRAM-ISUMA 2014 joint conference (Second International Conference on Vulnerability and Risk Analysis and Management - ICVRAM2014 & Sixth International Symposium on Uncertainty Modelling and Analysis - ISUMA2014), University of Liverpool, UK, 13-16 July, 2014.
35. **Session** on "Structural Identification and Damage Detection using Vibration Measurements" 7th European Workshop for Structural Health Monitoring (EWSHM2014), Nantes, France, July 2014.
36. **Session** on "Uncertainty Quantification and Propagation in Structural Dynamics" 32nd *International Modal Analysis Conference (IMAC 2014)*, Orlando, Florida, February 2014.
37. **MS** on "Structural Identification and Damage Detection", ASCE-EMI2013 Conference, Evanston, USA, 4-7 August, 2013.
38. **Session** on "Inverse Methods in Structural Dynamics" *CSC2013 (The Third International Conference on Soft Computing Technology in Civil, Structural and Environmental Engineering)*, Cagliari, Sardinia, Italy, September 2013
39. **MS** on "System Identification in Structural Dynamics" *ICOSSAR 2013 Conference*, New York, June 2013
40. **MS** on "Identification Methods in Structural Dynamics" *4th International Conference on Computational Dynamics and Earthquake Engineering (COMPDYN2013)*, Kos, Greece, June, 2013
41. **Session** on "Uncertainty Quantification and Propagation in Structural Dynamics" *International Modal Analysis Conference (IMAC 2013)*, Los Angeles, California, February 2013
42. **Session** on "Vibration-based Structural Health Monitoring and Damage Identification" *5th European Conference on Structural Control (EACS 2012)*, Genoa, Italy, 18-20 June 2012
43. **MS** on "Vibration-based Health Monitoring, Damage Identification and Parameter Estimation for Civil Engineering Structures" *3rd International Symposium on Life-Cycle Civil Engineering (IALCCE 2012)*, Vienna, October 2012
44. **MS** on "Identification Methods in Structural Dynamics" *3rd International Conference on Computational Dynamics and Earthquake Engineering (COMPDYN2011)*, Corfu, Greece, June, 2011
45. **Session** on "Soft computing methods for analysis, optimization and Bayesian updating of systems under uncertainty" for the *CSC2011 (The Second International Conference on Soft Computing Technology in Civil, Structural and Environmental Engineering)*, Chania, Krete, Greece, September 2011
46. **MS** on "Structural Identification and Structural Health Monitoring" *EURODYN 2011* of the European Association of Structural Dynamics, July 6-8, Leuven, Belgium, 2011
47. **MS** on "Structural Identification and Damage Detection" for the *ASCE Engineering Mechanics Institute (EMI2010)*, Conference, Los Angeles, August 8-11, 2010

48. **Session** on "Vibration-based structural identification and damage detection" *5th European Workshop on Structural Health Monitoring (EWSHM2010)*, Sorrento-Naples, Italy, June 29 – July 2, 2010
49. **MS** on "Model and Parameter Identification in Structural Mechanics" *IV European Conference on Computational Mechanics: Solids, Structures and Coupled Problems in Engineering (ECCM 2010)*, Paris, May 16-21, 2010
50. **MS** on "Identification Methods in Structural Dynamics" *2nd International Conference on Computational Dynamics and Earthquake Engineering (COMPDYN2009)*, Rhodes, Greece, June, 2009
51. **Symposium** on "Nonlinear Dynamics, Optimization and Reliability of Mechanical Systems" *21th Biennial ASME Conference on Mechanical Vibration and Noise*, Las Vegas, September, 2007
52. **MS** on "Identification Methods in Structural Dynamics" *1st International Conference on Computational Dynamics and Earthquake Engineering (COMPDYN2007)*, Rethymnon, Krete, June, 2007
53. **Session** on "Bayesian Parameter and State Estimation" *ICOSSAR'05 Conference*, Rome, Italy, June 19-22, 2005
54. **Symposium** on "Nonlinear Dynamics, Optimization and Reliability of Mechanical Systems" *20th Biennial ASME Conference on Mechanical Vibration and Noise*, Long Beach, California, September, 2005
55. **Symposium** on "Dynamics and Identification of Piecewise Linear and Nonlinear Systems" *19th Biennial ASME Conference on Mechanical Vibration and Noise*, Chicago, Illinois, September 2-6, 2003
56. **Symposium** on "Vibration, Identification and Control of Dynamical Systems" *5th EUROMECH Solid Mechanics Conference*, Thessaloniki, Greece, August 17-22, 2003
57. **MS** on "System Identification, Order Reduction and Fault Detection" for the *18th Biennial ASME Conference on Mechanical Vibration and Noise*, Pittsburgh, Pennsylvania, September 9-13, 2001

PARTICIPATION IN FUNDED RESEARCH PROJECTS

(PI=Principal Investigator, Co-I: Co-Investigator, I: Contributing as Investigator)

1. **PI:** *Dynamic virtualisation: modelling performance of engineering structures (DyVirt).* Marie Skłodowska-Curie Innovative Training Networks, 2018 - 2022 (48 months).
2. **Co-I:** *Multi-level Probabilistic Framework for Real-time Monitoring and Sensor Network DesignNovel* Research Grants Council Hong Kong (Project #: 16211019), 2020–2022. (PI: L. Katafygiotis, HKUST).
3. **Co-I:** *Novel Bayesian Methodology for Data-Drive Uncertainty Quantification and Propagation in Structural Dynamics.* Research Grants Council Hong Kong (16212918), 2019–2021. (PI: L. Katafygiotis, HKUST).
4. **I:** *Fatigue Monitoring of Wind Turbines using Self-Powered Wireless Sensor Networks.* Research Grants Council of Hong Kong, 2017 – 2019. (PI: L. Katafygiotis, HKUST).
5. **PI:** *Bayesian Uncertainty Quantification for Updating Systematic Damage Description Models.* IKY under program IKYDA – Promotion of the Exchange and Scientific Collaboration between Greece and Germany, Jan. 2015 – Dec. 2017.
6. **PI:** *Uncertainty Quantification and Propagation in Complex Structural Dynamics Simulations using Monitoring Data (UQ-dynamics).* Greek General Secretariat of Research and Technology *(Program Excellence)*, 2012 – 2015.
7. **PI:** *Robust Aerostructural Optimization based on New Higher-Order Adjoint Methods.* Greek General Secretariat of Research and Technology, 2012 – 2015.
8. **PI:** *Uncertainty Quantification, Identification and Propagation in Structural Response and Reliability Simulations using Measured Data.* Greek Ministry of Education (Program Hrakleitos), 2010 – 2013.
9. **PI:** *Evaluation of Repair of Damaged Buildings due to Earthquakes using Vibration Measurements and Software.* Institute of Mechanics, Materials and Geomechanics - IMMG through Innovation Coupons provided by Greek General Secretariat of Research and Development, Sept. 10, 2009 – January 9, 2011.
10. **PI:** *Development of System for on-line, Real Time, Health Monitoring of Instrumented Bridges from the Management Center of Egnatia Odos S.A.*. Entexnos S.A., Aug 2009 – Oct. 2009.
11. **PI:** *Modal Identification and Model Updating of Egnatia Odos Bridges and Upgrading of GUI-based Modal Identification and Model Updating Software.* Egnatia Odos SA, Dec 2007 – Nov. 2008.
12. **PI:** *Advanced Methods for Structural Health Monitoring.* IKY under program IKYDA – Promotion of the Exchange and Scientific Collaboration between Greece and Germany, Jan. 2007 – Dec. 2008.
13. **Co-I:** *Development of Bayesian Structural Health Monitoring Methodology and its Enhancement by Optimal Sensor Placement and by Optimal Model Class Selection.* Research Grants Council (Hong Kong), 2006 – 2008 (PI: Paul Lam, City University of Hong Kong).

14. **PI:** *Dynamic Response and Design Optimization of Vehicle Structures.* Greek General Secretariat of Research and Technology (PENED 2003). July 2005 – June 2008. (With AUTH and Sarakaki AEBE – AE.).
15. **PI:** *Development of a Structural Identification and Damage Detection Methodology.* Greek Ministry of Education (Program Hrakleitos), 2003 – 2005.
16. **PI:** *Earthquake Protection of Bridges – ΑΣΠροΓε.* Greek General Secretariat of Research and Development (EPAN2003). 42 months (Oct. 2003 – March 2007). Consortium with AUTH, ITSAK, Egnatia Odos A.E. and 10 more Universities and construction companies.
17. **Co-I:** *Development of a Monitoring System for Assessing Structural Integrity of Bridges under Earthquake Loads*. Greek Earthquake Planning and Protection Organization, 24 months (Febr. 2001 – Jan 2003).
18. **Co-I:** *Development of Structural Health Monitoring and Diagnosis System for Important Bridges Owned by Egnatia Odos S.A*. Egnatia Odos S.A., 24 months (July 2001 – June 2003).
19. **Co-I:** *Leakage Diagnosis and Prevention in Water Pipe Networks.* Greek General Secretariat of Research and Development (PABET 2001). 24 months (Sept. 2001 – Aug. 2003).
20. **Co-I:** *Development of Identification and Health Monitoring System for Structures of Crucial Importance.* Greek General Secretariat of Research and Development (PENED 1999), Jan. 2000 – Aug. 2001. With UPatras & AUTH.

Before Joining the University of Thessaly

21. **I:** *Methodology for structural model updating and damage detection using vibration monitoring*. The Hong Kong Research Grants Council, Οκτ. 1997 – Sept. 2000.
22. **I:** *Reliability methods for performance evaluation*. NSF - Pacific Earthquake Engineering Research Center, 1998 – March 1999.
23. **PI:** *A probability-based description of strong motion accelerograms for improved seismic risk studies*. National Science Foundation - Research Initiation Award, 1993 - 1997 (Grants BCS-9309149 and CMS-9796135).
24. **I:** *Development of modal updating tools for precision space structures (part of the Space Interferometry Program)*. NASA – Jet Propulsion Laboratory. Aug. 1996 – Jul. 1998.
25. **I:** *New computer tools for optimal design decisions in the presence of risk*. California Universities for Research in Earthquake Engineering under the CUREe-Kajima Research Program, June 1994 – March 1996.
26. **I:** *Technology for infrastructure wind loads and response monitoring systems*. The Hong Kong UPGC Research Infrastructure Program, Sept. 1995 – Aug. 1996.
27. **I:** *A new damage detection methodology for civil structures using vibration monitoring*. The Hong Kong Research Grants Council, Sept. 1995 – Aug. 1996.
28. **PI:** *Response characteristics of uncertain structures subjected to earthquake loads*. Texas Engineering Experiment Station, Sept 1992 – Aug. 1993.

Funded Educational Programs

29. **PI:** *Restructuring of Postgraduate Program, Department of Mechanical and Industrial Engineering, University of Thessaly*. Ministry of Education (Program EPEAEK II-EKT), Sept 2001 – Aug 2003.
30. **PI:** *Laboratory Equipment for Postgraduate Program, Department of Mechanical and Industrial Engineering, University of Thessaly*. Ministry of Education (Program EPEAEK II-ETPA), Sept 2001 – Aug 2003.

TEACHING EXPERIENCE

Graduate

Erasmus Mundus II Program on "Turmbomachinery Aeromechanics University Training" THRUST:
Random Vibrations – Structural Reliability (Fall 2011-12, 2012-13, 2013-14, 2014-15, 2015-16, 2016-17, 2018-19)
University of Thessaly:
Uncertainty Quantification in Engineering Science (Fall 2013-14, 2014-15, 2015-16, 2018-19);
Stochastic Analysis of Vibrations of Mechanical and Structural Systems;
System Dynamics (Spring 2001-2002);
Mechanical Vibrations (Fall 2000-2001);
Advanced Computational Dynamics (Spring 1999-2000).
Caltech: Computational Mechanics (1996-1997, 1996-1997)
Texas A&M University: Structural Dynamics (Spring 1992).

Undergraduate

Univ. of Thessaly:
Dynamics and Vibrations of Mechanical Systems (Fall 2000-2019);
Dynamics (Fall 2000-2018);
Mechanics-Statics (Spring 2000-01, 2017-18, 2018-19);
Finite Element Method (Fall 2000-2001);
Partial Differential Equations (Spring 2000-2001).
Caltech: Statics and Dynamics (1994-1995).

Texas A&M University:
Theory of Structures;
Numerical Analysis;
Engineering Mechanics of Materials;
Static, Dynamics and Strength of Materials;
Engineering Problem Solving & Computing.

Postdoctoral Fellows Supervising in University of Thessaly

1. C. Argyris (July–Dec. 2017), Data-Driven Uncertainty Quantification for Engineering Systems.
   Current Position (Jan. 2018 – present): Postdoctoral Fellow, Dept. of Civil Engineering, K.U.Leuven, Belgium.
2. S. Eftekhar Azam (Jan. 2014 – Sept 2015), Response and Fatigue Predictions in Structures using Kalman-type Filters and Limited Number of Vibration Measurements.
   Current Position (Jan. 2017 – present): Postdoctoral Fellow, Dept. of Civil Engineering, University of Nebraska at Lincoln. Previous Position (Sept. 2015- Dec. 2016): Postdoctoral Fellow, University of Milan, Italy.
3. D. Papadimitriou (June 2012 – May 15), Robust Aero-structural Optimization based on New Higher-Order Adjoint Methods.
   Current Position (Oct. 2015 - present): FEA Engineer, BETA CAE Systems USA, Inc. & Postdoctoral Fellow, Oakland University, Michigan, USA.
4. P. Angelikopoulos (2012 – 2015), Uncertainty Quantification and Propagation for Molecular Dynamics Simulations and Nanotechnology, Visitor from ETH-Zurich (Supervising jointly with Prof. Petros Koumoutsakos).
   Current Position (Jan. 2016 - present): Research Scientist, DE Shaw Research, New York, USA.

Doctoral Theses Supervising in University of Thessaly

1. T. Ercan (in progress since Oct. 2018), Bayesian Optimal Experimental Design in Structural Dynamics. Funded by Marie Skłodowska-Curie Innovative Training Network.
2. X. Jia (in progress since Oct. 2018), Bayesian Tool for UQ in Structural Dynamics Simulations. Funded by Marie Skłodowska-Curie Innovative Training Network.
3. C. Argyris (2017), Bayesian Uncertainty Quantification and Optimal Experimental Design in Data-Driven Simulations of Engineering Systems.
   Current Position (Jan. 2018 – present): Postdoctoral Fellow, Dept. of Civil Engineering, K.U.Leuven, Belgium.
4. D.-C. Papadioti, (July 2015), Management of uncertainties in structural response and reliability simulations using measured data.
   Current Position (2018 – present): Water Supply and Sewerage Company, Thessaloniki. Previous Position (2015-17): Postdoctoral Fellow & Instructor, Dept of Civil Engineering, University of Thessaly, Greece.
5. G. Karaiskos, (Febr. 2011), Experimental Verification of Active Vibration Control of Structures using Jet Pulses.
   Current Position: Postdoctoral fellow at Department Mechanics of Materials and Constructions (MeMC) of Vrije Universiteit Brussel (VUB). Previous Position (2011-14): Postdoctoral fellow at Building, Architecture & Town Planning Department (BATir Service) of Université Libre de Bruxelles (ULB).
6. K. Perros (Aug. 2010), Reliability and Design Optimization of Nonlinear Dynamical Systems under Uncertainty.
   Current Position: Research and Development Engineer, ACE-Hellas S.A., Athens, Greece.
7. E. Ntotsios (Dec. 2009), Structural Identification of Complex Structures based on Vibration Measurements.
   Current Position: Research Fellow, Dynamics Group, University of Southampton, England. Previous Position: Research Associate, School of Civil and Building Engineering, Loughborough University, England.

8. K. Christodoulou (March 2006), Development of Damage Detection and Identification Methododology. Current Position: Technical Service Department, Prefecture of Magnisia, Volos, Greece.

Doctoral Theses Co-Supervising/Collaborations

9. O. Sedehi (in progress since 2017), Bayesian Hierarchical Modeling for UQ in Structural Dynamics, Dept. of Civil and Environmental Engineering, Hong Kong University of Science and Technology – HKUST (visiting UTH June – August 2017), (Co-supervising with Prof. L. Katafygiotis)
10. V. Flores Terrazas (in progress since 2018), Performance and Safety of Wind Turbines under Uncertainty, Dept. of Civil & Environmental Engineering, HKUST, (Co-supervising with Prof. L. Katafygiotis)
11. K. Larson (in progress since 2016), Bayesian Uncertainty Quantification in Biological Models, Department of Applied Mechanics, Brown University (Supervisor: Professor Tasos Matzavinos).
12. D. Lau (2017-2018; MSc Thesis), Response Reconstruction and Fatigue Predictions using Output Vibration Measurements, Department of Civil and Environmental Engineering, HKUST (also visiting UTH June – August 2017), (Co-supervising with Prof. L. Katafygiotis)

M.Sc./MPhil Students Supervising (now holding academic/research positions)

1. S. Gaitanaros (2009 – UTH), 1 joint journal publication, Current Position: Asst. Prof. Johns Hopkins University.
2. S.K. Au, (1995 – HKUST), 3 joint journal publications, Current Pos: Professor, Nanyang Technological Univ.

Diploma/M.Sc. Theses Supervising

Supervised the M.Sc. thesis of 15 graduate students and the Diploma thesis of more than 45 undergraduate students.

PROFESSIONAL AFFILIATIONS

Member of the European Association of Structural Dynamics (EASD)
Member of the American Society of Civil Engineers
Member of Society for Experimental Mechanics
Member of Hellenic Association of Computational Mechanics (GRACM)
Member of the Technical Chamber of Greece

PUBLICATIONS

Scopus Citations (excluding self-citations): **3370** (Link to: Scopus), h-index: 32
Google Scholar Citations: **6200** (Link to: Google Scholar), h-index: 39

Book

Jensen, H. and **Papadimitriou, C.** (2019). *Sub-structure Coupling for Dynamic Analysis: Application to Complex Simulation-Based Problems Involving Uncertainty*, Lecture Notes in Applied and Computational Mechanics 89, Springer Nature, Switzerland.

Book Co-Editor

1. Chatzi, E.N. and **Papadimitriou, C.** (Eds.) (2016). Identification Methods for Structural Health Monitoring, Series: CISM-International Centre for Mechanical Sciences, Springer, http://www.springer.com/in/book/9783319320755.

Guest Co-Editor of Special Journal Issues

1. Chatzi, E., Chatzis, M. and **Papadimitriou, C.** (Guest Editors) (2017), "Special issue on Robust Monitoring, Diagnostic Methods and Tools for Engineered Systems," *Frontiers in Build Environment: Structural Sensing*, link.
2. Chatzi, E., **Papadimitriou, C.** and Beck, J. L. (Guest Editors) (2016), "Special issue on Uncertainty Quantification and Propagation in Structural Systems," *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering*, 10.1061/AJRUA6.0000884, B2016001.
3. Katafygiotis, L.S. and **Papadimitriou, C.** (Guest Editors) (2010), "Special Issue on Probabilistic Methods for Modeling, Simulation and Optimization of Engineering Systems under Uncertainty - in Honor of Jim Beck's 60th Birthday," *Journal of Structural Safety*, 32(5), 273-356.
1. Papadimitriou, C. and Au, S.K. (Guest Editors) (2010), "Special Issue on Advances in Reliability Methods and Probabilistic System Identification Techniques," *International Journal of Reliability and Safety*, 4(2/3), 119-299.

Conference Proceedings Co-Editor

1. Model Validation and Uncertainty Quantification, Proceedings of the 35th IMAC, A Conference and Exposition on Structural Dynamics, R. Barthorpe, R. Platz, I. Lopez, B. Moaveni, **C. Papadimitriou** (Eds). Series: Conference Proceedings of the Society for Experimental Mechanics Series, Volume 3, 2017.
2. Model Validation and Uncertainty Quantification, Proceedings of the 34th IMAC, A Conference and Exposition on Structural Dynamics, H. S. Atamturktur, T. Schoenherr, B. Moaveni, **C. Papadimitriou** (Eds). Series: Conference Proceedings of the Society for Experimental Mechanics Series, Volume 3, 2016.
3. Model Validation and Uncertainty Quantification, Proceedings of the 33rd IMAC, A Conference and Exposition on Structural Dynamics, H. S. Atamturktur, B. Moaveni, **C. Papadimitriou**, T. Schoenherr (Eds). Series: Conference Proceedings of the Society for Experimental Mechanics Series, Volume 3, 2015.
4. Model Validation and Uncertainty Quantification, Proceedings of the 32nd IMAC, A Conference and Exposition on Structural Dynamics, H. S. Atamturktur, B. Moaveni, **C. Papadimitriou**, T. Schoenherr (Eds). Series: Conference Proceedings of the Society for Experimental Mechanics Series, Volume 3, 2014.
5. Topics in Model Validation and Uncertainty Quantification, Proceedings of the 31st IMAC, A Conference on Nonlinear Dynamics, T. Simmermacher, S. Cogan, B. Moaveni, **C. Papadimitriou** (Eds). Series: Conference Proceedings of the Society for Experimental Mechanics Series, Volume 5, 2013.

Encyclopedia Section Co-Editor

1. Structural Engineering: Health Monitoring. Chatzi, E. and **Papadimitriou, C.**, Lombaert, G. (Section Eds), Encyclopedia of Earthquake Engineering, Springer, 2014.

Book Chapters and Encyclopedia Sections

1. Yan, W.-J., Katafygiotis, L. and **Papadimitriou, C.** (2019). "Fast Bayesian Approach for Stochastic Model Updating Incorporating Modal Information from Multiple Setups", in "Bayesian Methods for the Analysis of

Engineering Systems", J. Ruano, S. Sankararaman, M. C. Ruano (Editors), CRC Press Taylor & Francis Group (in press).

2. **Papadimitriou, C.** (2016). "Bayesian Uncertainty Quantification and Propagation (UQ+P): State-of-the-Art Tools for Linear and Nonlinear Structural Dynamics Models," on Identification Methods for Structural Health Monitoring, Eds: Chatzi E. and Papadimitriou, C., Series: CISM-Springer.
3. **Papadimitriou, C.** and Katafygiotis, L.S. (2004). "Bayesian Modeling and Updating." In *Engineering Design Reliability Handbook*, E. Nikolaidis, D.M. Ghiocel and S. Singhal (Eds), CRC Press.
4. Simoen, E., **Papadimitriou, C.** and Lombaert, G. (2013). "Model Class Selection for Prediction Error Estimation." Encyclopedia of Earthquake Engineering, Springer.

Submitted to Refereed Journals

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