CURRICULUM VITAE

Prof. Alba Sofi

PERSONAL INFORMATION

Department of Architecture and Territory (dArTe)
University "Mediterranea" of Reggio Calabria
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CURRENT POSITION

2020	Associate Professor of *Mechanics of Solids and Structures* at University "Mediterranea" of Reggio Calabria, Italy, Department of Architecture and Territory (dArTe).
2022-2025	Adjunct Professor at the Research Center for Wind Engineering and Engineering Vibration, Guangzhou University, Guangzhou, China.

EDUCATION AND ACADEMIC CAREER

2017	National Scientific Qualification (art.16 of the law 30 December 2010, n.240) as Full Professor of *Mechanics of Solids and Structures*.
2014	National Scientific Qualification (art.16 of the law 30 December 2010, n.240) as Associate Professor of *Mechanics of Solids and Structures* (2012 Session).
2005	Appointment as Assistant Professor (tenured position) of *Mechanics of Solids and Structures* at University "Mediterranea" of Reggio Calabria, Italy, Department of Architecture and Territory.
2004-2005	Fellowship as Research Assistant, University "Mediterranea" of Reggio Calabria, Italy, Faculty of Architecture.
2002-2004	Post-Doctoral Fellowship, University of Messina, Italy, Faculty of Engineering.
2001-2003	Contract as Assistant Professor of *Structural Mechanics* at University "Mediterranea" of Reggio Calabria, Italy, Faculty of Architecture.
1999-2002	Ph.D. in Structural Engineering at the Department of Structural and Geotechnical Engineering at the University of Palermo, Italy, Faculty of Engineering. Thesis title: "Static and Dynamic Analysis of Structures with Geometrical Nonlinearities and Uncertain Parameters", in English.
1998	Master of Science Degree in Civil Engineering, "cum laude" and with mention of merit, University of Messina, Italy, Faculty of Engineering. Thesis title: "Analisi dinamica non lineare di cavi sospesi", in Italian.

TEACHING ACTIVITIES

Professor of the following courses at the University "Mediterranea" of Reggio Calabria (Italy): *Statics, Structural Mechanics, Mechanics of Solids and Structures, Computational Structural Mechanics, Numerical Modeling, Physical Reality and Structural Models, Physical Reality and Structural Models in Structural Mechanics*.

RESEARCH AND TEACHING ACTIVTIES AT FOREIGN UNIVERSITIES

July 2019, 2021	Visiting Professor at "International Weeks 2019", July 1-15, 2019, and "International Weeks 2021", July 1-21, 2021 (online), Xidian University, Xi'an (China).
May 2018	Visiting Professor at Guangzhou University-Tamkang University Joint Research Center for Engineering Structure Disaster Prevention and Control, Guangzhou University, Guangzhou (China), May 17-June 3, 2018.
2016-2019	Visiting Fellow in the Department of Engineering Science, University of Oxford, Oxford (UK).
Aug-Nov 2017	Visiting Fellow in the School of Civil and Environmental Engineering, Faculty of Engineering, University of New South Wales, Sydney (Australia).
Sept - Dec 2004	Research activity at "Rice University", Houston (Texas, USA) as Visiting Scholar under the supervision of Professor Pol Spanos.

MAIN SERVICES IN ACADEMIC EDUCATION

Apr 2017 to present	Erasmus delegate of the Department of Architecture and Territory.
2019 to present	Member of the Doctoral School in "Architecture", University "Mediterranea" of Reggio Calabria.
2007-2012	Member of the Scientific Committee of the Library of the Faculty of Architecture, University "Mediterranea" of Reggio Calabria, Italy.

INVITED SEMINARS (Selection)

- "Reliability analysis of structural systems in the presence of random excitation and interval uncertainties", Guangzhou University, Guangzhou (China), December 19, 2022.
- "The interval model of uncertainty: fundamentals and recent advances", Guangzhou University, Guangzhou (China), May 22, 2018.
- "Finite Element Procedures for the Analysis of Structures with Interval Uncertainties", Department of Engineering Science, University of Oxford (UK), November 6, 2017.
- "Finite Element Analysis of Structures with Interval Uncertainties", University of New South Wales, Sydney (Australia), September 5, 2017.
- "Non-Stationary Response of Nonlinear Oscillators Subject to Random Excitations", Department of Civil Engineering, Rice University, Houston (Texas, USA), November 30, 2004.

EDITORIAL ACTIVITIES

Associate Editor:	*ASME Open Journal of Engineering* (*AOJE*) (since Oct 2021); *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering; Part B: Mechanical Engineering* (since Jan 2017); *Computational Methods in Structural Engineering*, Frontiers in Built Environment (since Sept 2020).
Editorial Board Member:	*International Journal of Non-linear Mechanics* (since June 2021); *Mathematics*, MDPI (since May 2021); *Journal of Infrastructure Preservation and Resilience* (since March 2019); *Advances in Engineering Software* (since Oct 2017): *Mathematical Problems in Engineering* (since Aug 2016); *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering; Part B: Mechanical Engineering* (since Nov 2015); *Shock and Vibration* (since April 2015).
Associate Managing Editor:	*ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B: Mechanical Engineering* (since Oct 2017).

Guest Editor: *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B: Mechanical Engineering* (Dec 2014 to Jan 2017).

Lead Guest Editor of a Special Section on "Non-probabilistic Approaches for Handling Uncertainties in Engineering" and a Special Issue on "Non-probabilistic Treatments of Uncertainties: Recent Developments" of the *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B. Mechanical Engineering* co-edited by Isaac Elishakoff and Giuseppe Muscolino (2015).

Lead Guest Editor of a Special Issue of *Probabilistic Engineering Mechanics* on "Risk and Uncertainty in Engineering Computations" co-edited by Giuseppe Muscolino (2022).

Reviewer for about 30 international journals including: *International Journal of Non-Linear Mechanics; Probabilistic Engineering Mechanics; Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences; Computers and Structures; Meccanica; Mechanical Systems and Signal Processing; Structural Safety; Computer Methods in Applied Mechanics and Engineering; Nonlinear Dynamics; Advances in Engineering Software; Journal of Vibration and Control; ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems; Applied Mathematical Modelling; Journal of Applied Mechanics ASME; Composite Structures.*

Reviewer of book proposals for CRC Press, Taylor & Francis Group.

SCIENTIFIC AND PROFESSIONAL ASSOCIATIONS (selection)

The American Society of Mechanical Engineers (ASME); the American Society of Civil Engineers (ASCE); Italian Association of Theoretical and Applied Mechanics (AIMETA); Interdepartmental Centre of Structural Theoretical and Experimental Dynamics (C.I.Di.S); Stochastic Mechanics AIMETA group (GMS).

ORGANIZATION OF CONFERENCES AND MINI-SYMPOSIA (selection)

- Co-Chair of the "9th International Workshop on Reliable Engineering Computing, Risk and Uncertainty in Engineering Computations" (REC2021), Taormina (Italy), May 17-20, 2021.
- Organizer of more than 15 mini-symposia at international conferences including: ASME International Mechanical Engineering Congress & Exposition (since 2016); UNCECOMP International Conference on Uncertainty Quantification in Computational Sciences and Engineering (2015, 2017, 2021,2023).
- Member of the organization committee of the International Conference "Stochastic Mechanics 2012", June 7-10, 2012, Ustica (Palermo, Italy).

SCIENTIFIC AND TECHNICAL COMMITTEES (selection)

- Member of the Awards and Fellowship Nomination Committee of the ASME Safety Engineering and Risk Analysis Division (since 2021).
- Member of the Committee on Probability and Statistics in the Physical Sciences of the Bernoulli Society (http://www2.aueb.gr/bs-cpsps/), since September 2018.
- Member of the Scientific Committee of "UNCECOMP 2023 5th International Conference on Uncertainty Quantification in Computational Sciences and Engineering", Athens (Greece), June 12-14, 2023.
- Member of the Scientific Committee of the 8th International Conference on Computational Stochastic Mechanics (CSM8), Paros, Greece, June 10-13, 2018.

AWARDS AND RECOGNITIONS (selection)

- Early Career Lecture entitled "Random vibrations in the presence of interval uncertainties", 13th International Conference on Structural Safety & Reliability ICOSSAR 2021-2022, 13-17 September 2022, Tongji University, Shanghai, China.
- Selected as 4th Vice-Chair (Secretary) of the Safety Engineering & Risk Analysis Division (SERAD) of the American Society of Mechanical Engineers (ASME).

- Certificate of Appreciation awarded by the American Society of Civil Engineers (ASCE) in recognition of "distinguished service to the Society as Associate Managing Editor of the *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems*".
- Editor's Award for the Best Paper published in 2020 in the *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B: Mechanical Engineering*. DOI: doi.org/10.1115/1.4047574.
- Selected as "Outstanding Reviewer for 2020" by the Editor of the *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering*.

RESEARCH PROJECTS

- PNRR O.R. 4.7. Information management and open knowledge for structural and environmental safety on cultural heritage (settlements and historic buildings) in transition scenarios. Open platform "phigital space" (physical and digital) of the type "user profiling" for the advanced and dynamic codesign of interventions on the built and ex novo. Duration: 36 months (01-07 2022-30-06-2025). Role: Work Package Leader.
- FSE_PON Research and Innovation 14-20 (Action IV.4 "Research contracts on innovation topics") Project Title: Innovation in the application of the Digital Twin for structural safety, resilience and energy efficiency of buildings. Duration: 36 months (January 2022-January 2024). Role: Principal Investigator.
- MUR –PNR 2015-2020. GEstioNE del rischio SISmico per la valorizzazione turistica dei centri storici del Mezzogiorno (2021-25). Duration: 30 months. Role: Principal Investigator of the Research Unit of Reggio Calabria.
- PRIN 2017: Multiscale Innovative Materials and Structures. Principal Investigator: Prof. Fernando Fraternali. Duration: 36 months. Role: participant.
- PRIN 2015: Identification and diagnostics of complex structural systems. Principal Investigator: Prof. Paolo Casini. Duration: 36 months. Role: participant.
- PRIN 2010-2011: Dynamic, stability and control of flexible structures. Principal Investigator: Prof. Angelo Luongo. Duration: 36 months. Role: participant.
- PON01_01869: Technologies and Innovative Materials for territory protection and environmental safeguard (Safeguard theme) - Implementing entity: MECMAT, University "Mediterranea" of Reggio Calabria, 2011. Role: participant.
- PRIN 2004: Monitoring and control of monumental heritage: an approach based on low-cost distributed technologies. Principal Investigator: Prof. Alessandro De Stefano. Duration: 24 months. Role: participant.
- PRIN 2003: Models and Phenomena in the Dynamics of Complex Structural Systems: analysis, experimentation and control. Principal Investigator: Prof. Fabrizio Vestroni. Duration: 24 months. Role: participant.
- PRIN 2003: Non-destructive methods for the identification and diagnosis of materials and structures. Principal Investigator: Prof. Antonino Morassi. Duration: 24 months. Role: participant.
- Internal funding RdB (basic research) 2008, 2009 e 2010. Role: Principal Investigator.

RESEARCH INTERESTS

- Modeling and propagation of uncertainties in engineering problems through probabilistic approaches:
  - Stochastic finite element analysis of structures with geometrical nonlinearities;
  - Dynamic analysis of suspended cables with uncertain pretension;
  - Stochastic analysis of structures with uncertain mechanical properties modeled as random variables subjected to non-stationary random processes;
  - Exact solutions for beams with random flexibility under deterministic static loads;
  - Analysis of non-local one-dimensional structures with uncertain mass density and Young's modulus modeled as random fields.

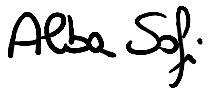
- Modeling and propagation of uncertainties in engineering problems through non-probabilistic approaches:
  - Static analysis of structures with uncertain geometrical and/or mechanical properties modeled as interval variables;
  - Time-domain and frequency-domain dynamic analysis of structures with uncertain geometrical and/or mechanical properties modeled as interval variables;
  - Stochastic analysis of structures with uncertain mechanical properties modeled as interval variables subjected to stationary random excitations;
  - Interval field model for the representation of spatially variable uncertainties;
  - Static analysis of elastic Euler-Bernoulli and Timoshenko beams and of non-local elastic bars with uncertain Young's modulus modeled as an interval field;
  - Finite element analysis of structures made of linear-elastic isotropic material with uncertain mechanical properties modeled as interval fields;
  - Finite element analysis of composite laminates with uncertain mechanical properties modeled as interval fields.
- Modeling and propagation of uncertainties in engineering problems through hybrid approaches:
  - Static analysis of structures with uncertain mechanical properties modeled as random variables described by an "imprecise" probability density function (i.e. with interval basic parameters).

- Structural reliability:
  - Reliability analysis of structural systems with uncertain mechanical properties modeled as interval variables subjected to stationary random excitation;
  - Reliability sensitivity analysis of structures with uncertain mechanical properties modeled as interval variables subjected to stationary random excitation;
  - Fatigue analysis of structures with uncertain mechanical properties modeled as interval variables subjected to stationary random excitation;
  - Reliability analysis of structural systems with uncertain mechanical properties modeled as random variables described by an "imprecise" probability density function (i.e. with interval basic parameters);
  - Serviceability assessment of footbridges with uncertain structural and loading parameters modeled as interval variables.
- Nonlinear random vibrations
  - Approximate solution of the Fokker-Planck-Kolmogorov equation;
  - Stochastic analysis of linear and nonlinear systems subjected to sub-Gaussian random processes;
  - Stochastic analysis of lightly damped nonlinear systems subjected to Gaussian white noise;
  - Dynamic analysis of suspended cables under wind excitation;
  - Step-by-step time integration techniques for nonlinear systems.
- Vehicle-structure dynamic interaction:
  - Analysis of Euler-Bernoulli beams crossed by moving oscillators;
  - Analysis of railway simply supported and suspension bridges;
  - Analysis of horizontal and inclined suspended cables crossed by moving masses or moving oscillators.
- Non-local elasticity:
  - Finite element analysis of two-dimensional non-local elastic problems;
  - Non-local Timoshenko beam theory;

- Analysis of one-dimensional non-local elastic systems with uncertain mechanical properties modeled using either probabilistic or non-probabilistic approaches.

- Fractional calculus:
  - Numerical integration of fractional differential equations.

Reggio Calabria, 30/04/2023 Alba Sofi



SCIENTIFIC PUBLICATIONS

International Journals

1. Sofi A, Muscolino G, Di Paola M (2023), Reliability analysis of structures controlled by external fractional viscoelastic dampers with interval parameters, *Acta Mechanica Sinica*, 39, 722486 (12 pages), ISSN: 0567-7718, https://doi.org/10.1007/s10409-023-22486-x
2. Sofi A, Muscolino G (2023), Improved pseudo-force approach for Monte Carlo Simulation of non-linear fractional oscillators under stochastic excitation, *Probabilistic Engineering Mechanics*, 71, 103403, 9 pages, ISSN: 0266-8920, DOI: 10.1016/j.probengmech.2022.103403.
3. Yu Y, Dong B, Gao W, Sofi A (2022), Physics-based stochastic aging corrosion analysis assisted by machine learning, *Probabilistic Engineering Mechanics*, 69, 103270, 17 pages, ISSN: 0266-8920, DOI: 10.1016/j.probengmech.2022.103270.
4. Sofi A, Giunta F, Muscolino G (2022). Fatigue life bounds for randomly excited structures with interval parameters via sensitivity analysis, *Probabilistic Engineering Mechanics*, 69, 103307, 11 pages, ISSN: 0266-8920, DOI: 10.1016/j.probengmech.2022.103307.
5. Muscolino G, Genovese F, Sofi A (2022). Reliability bounds for structural systems subjected to a set of recorded accelerograms leading to imprecise seismic power spectrum, *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering*, 8(2): 04022009, ISSN: 2376-7642, DOI: https://doi.org/10.1061/AJRUA6.0001215.
6. Sofi A, Giunta F, Muscolino G (2022). Reliability Analysis of Randomly Excited FE Modelled Structures with Interval Mass and Stiffness via Sensitivity Analysis, *Mechanical Systems and Signal Processing*, ISSN: 0888-3270, 163, 107990, DOI: https://doi.org/10.1016/j.ymssp.2021.107990.
7. Santoro R, Sofi A, Tubino F (2021). A Serviceability Assessment of Footbridges via Improved Interval Analysis, *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B: Mechanical Engineering*, 7(2): 020906 (15 pages) ISSN: 2332-9017, DOI: doi.org/10.1115/1.4050169.
8. Sofi A, Muscolino G, Giunta F (2020). A Sensitivity-Based Approach for Reliability Analysis of Randomly Excited Structures With Interval Axial Stiffness, *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B: Mechanical Engineering*, 6(4), 041008 (10 pages), ISSN: 2332-9017, DOI: doi.org/10.1115/1.4047574.
9. Sofi A, Muscolino G, Giunta F (2020). Propagation of uncertain structural properties described by imprecise probability density functions via response surface method, *Probabilistic Engineering Mechanics*, 60, 103020, 14 pages, ISSN: 0266-8920, DOI: 10.1016/j.probengmech.2020.103020.
10. Sofi A, Muscolino G, Giunta F (2019). Fatigue analysis of structures with interval axial stiffness subjected to stationary stochastic excitations, *Meccanica*, 54(9), pp. 1471-1487, ISSN: 0025-6455, DOI: 10.1007/s11012-019-01022-2.
11. Feng J, Li Q, Sofi A, Li G, Wu D, Gao W (2019). Uncertain structural free vibration analysis with non-probabilistic spatially varying parameters, *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B: Mechanical Engineering*, 5(2), 021005-1 (12 pages), ISSN: 2332-9017, DOI: 10.1115/1.4041501.
12. Sofi A, Romeo E, Barrera O, Cocks A (2019). An interval finite element method for the analysis of structures with spatially varying uncertainties, *Advances in Engineering Software*, 128, pp. 1–19, ISSN: 0965-9978, DOI: 10.1016/j.advengsoft.2018.11.001.
13. Muscolino G, Sofi A, Giunta F (2018). Dynamics of structures with uncertain-but-bounded parameters via pseudo-static sensitivity analysis, *Mechanical Systems and Signal Processing*, 111, pp. 1–22, ISSN: 0888-3270, DOI: 10.1016/j.ymssp.2018.02.023.
14. Sofi A, Romeo E (2018). A unified response surface framework for the interval and stochastic finite element analysis of structures with uncertain parameters, *Probabilistic Engineering Mechanics*, 54, pp. 25-36, ISSN: 0266-8920, DOI: 10.1016/j.probengmech.2017.06.004.

15. Sofi A (2017). Euler-Bernoulli interval finite element with spatially varying uncertain properties, *Acta Mechanica*, 228(11), pp. 3771–3787, ISSN: 00015970, DOI: 10.1007/s00707-017-1903-7.

16. Muscolino G, Sofi A (2017). Analysis of structures with random axial stiffness described by imprecise probability density functions, *Computers & Structures*, 184, pp. 1-13, ISSN: 0045-7949, DOI: 10.1016/j.compstruc.2017.02.001.

17. Sofi A, Romeo E (2016). A novel Interval Finite Element Method based on the improved interval analysis, *Computer Methods in Applied Mechanics and Engineering*, 311, pp. 671–697, ISSN: 0045-7825, DOI: 10.1016/j.cma.2016.09.009.

18. Muscolino G, Santoro R, Sofi A (2016). Reliability assessment of structural systems with interval uncertainties under spectrum-compatible seismic excitations, *Probabilistic Engineering Mechanics*, 44, pp. 138–149, ISSN: 0266-8920, DOI: 10.1016/j.probengmech.2015.11.005.

19. Muscolino G, Santoro R, Sofi A (2016). Reliability analysis of structures with interval uncertainties under stationary stochastic excitations, *Computer Methods in Applied Mechanics and Engineering*, 300, pp. 47–69, ISSN: 0045-7825, DOI: 10.1016/j.cma.2015.10.023.

20. Muscolino G, Santoro R, Sofi A (2016). Interval fractile levels for stationary stochastic response of linear structures with uncertainties, *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B: Mechanical Engineering*, Vol. 2(1), 011004-1 (11 pages), ISSN: 2332-9017, DOI: 10.1115/1.4030455.

21. Sofi A (2015). Structural response variability under spatially dependent uncertainty: stochastic versus interval model, *Probabilistic Engineering Mechanics*, 42, pp. 78-86, ISSN: 0266-8920, DOI: 10.1016/j.probengmech.2015.09.001.

22. Sofi A, Muscolino G, Elishakoff I (2015). Static response bounds of Timoshenko beams with spatially varying interval uncertainties, *Acta Mechanica*, 226(11), pp 3737-3748, ISSN: 00015970, DOI: 10.1007/s00707-015-1400-9.

23. Sofi A, Muscolino G (2015) Static analysis of Euler-Bernoulli beams with interval Young's modulus, *Computers & Structures*, 156, pp. 72-82, ISSN: 0045-7949, DOI: 10.1016/j.compstruc.2015.04.002.

24. Sofi A, Muscolino G, Elishakoff I (2015). Natural frequencies of structures with interval parameters, *Journal of Sound and Vibration*, 347, pp. 79–95, ISSN: 0022-460X, DOI: 10.1016/j.jsv.2015.02.037.

25. Failla G, Sofi A, Zingales M (2015). A new displacement-based framework for non-local Timoshenko beams, *Meccanica*, 50 (8), pp. 2103-2122, ISSN: 0025-6455, DOI: 10.1007/s11012-015-0141-0.

26. Muscolino G, Santoro R, Sofi A (2015). Explicit reliability sensitivities of linear structures with interval uncertainties under stationary stochastic excitation, *Structural Safety*, 52 (Part B), pp. 219-232, ISSN: 01674730, DOI: 10.1016/j.strusafe.2014.03.001.

27. Muscolino G, Santoro R, Sofi A (2014). Explicit frequency response functions of discretized structures with uncertain parameters, *Computers & Structures*, 133, pp. 64-78, ISSN: 0045-7949, DOI: 10.1016/j.compstruc.2013.11.007.

28. Muscolino G, Santoro R, Sofi A (2014). Explicit sensitivities of the response of discretized structures under stationary random processes, *Probabilistic Engineering Mechanics*, 35, pp. 82-95, ISSN: 0266-8920, DOI: 10.1016/j.probengmech.2013.09.006.

29. Muscolino G, Sofi A., Zingales M (2013). One-dimensional heterogeneous solids with uncertain elastic modulus in presence of long-range interactions: interval versus stochastic analysis, *Computers & Structures*, 122, pp. 217-229, ISSN: 0045-7949, DOI: 10.1016/j.compstruc.2013.03.005.

30. Di Paola M, Failla G, Pirrotta A, Sofi A, Zingales M (2013). The mechanically based non-local elasticity: An overview of main results and future challenges, *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 371 (1993), pp. 1-16, ISSN:1364503X, DOI: 10.1098/rsta.2012.0433.

31. Sofi A (2013). Nonlinear in-plane vibrations of inclined cables carrying moving oscillators, *Journal of Sound and Vibration*, 332(7), pp. 1712–1724, ISSN: 0022-460X, DOI: 10.1016/j.jsv.2012.11.012.

32. Muscolino G, Sofi A (2013). Bounds for the stationary stochastic response of truss structures with uncertain-but-bounded parameters, *Mechanical Systems and Signal Processing*, 37(1-2), pp. 163-181, ISSN: 0888-3270, DOI: 10.1016/j.ymssp.2012.06.016.

33. Di Paola M, Failla G, Sofi A, Zingales M (2012). On the vibrations of a mechanically based non-local beam model, *Computational Materials Science*, 64, pp. 278-282, ISSN: 0927-0256, DOI: 10.1016/j.commatsci.2012.03.031.

34. Muscolino G, Sofi A (2012). Stochastic analysis of structures with uncertain-but-bounded parameters via improved interval analysis, *Probabilistic Engineering Mechanics*, 28, pp. 152-163, ISSN: 0266-8920, DOI: 10.1016/j.probengmech.2011.08.011.

35. Di Paola M, Failla G, Sofi A, Zingales M (2011). A mechanically based approach to non-local beam theories, *International Journal of Mechanical Sciences*, 53(9), pp. 676-687, ISSN: 0020-7403, DOI: 10.1016/j.ijmecsci.2011.04.005.

36. Muscolino G, Sofi A (2011). Response statistics of linear structures with uncertain-but-bounded parameters under Gaussian stochastic input, *International Journal of Structural Stability & Dynamics*, 11(4), pp. 775-804, ISSN: 0219-4554, DOI: 10.1142/S0219455411004348.

37. Di Paola M, Sofi A, Zingales M (2011). Stochastic analysis of one-dimensional heterogeneous solids with long-range interactions, *International Journal for Multiscale Computational Engineering*, 9(4), pp. 379-394, ISSN: 1543-1649, DOI: 10.1615/IntJMultCompEng.v9.i4.30.

38. Pisano A A, Sofi A, Fuschi P (2009). Nonlocal integral elasticity: 2D finite element based solutions, *International Journal of Solids and Structures*, 46(21), pp. 3836-3849, ISSN: 0020-7683, DOI: 10.1016/j.ijsolstr.2009.07.009.

39. Pisano A A, Sofi A, Fuschi P (2009). Finite element solutions for nonhomogeneous nonlocal elastic problems, *Mechanics Research Communications*, 36(7), pp. 755-761, ISSN: 0093-6413, DOI: 10.1016/j.mechrescom.2009.06.003.

40. Muscolino G, Palmeri A, Sofi A (2009). Absolute versus relative formulations of the moving oscillator problem, *International Journal of Solids and Structures*, 46(5), pp. 1085-1094, ISSN: 0020-7683, DOI: 10.1016/j.ijsolstr.2008.10.019.

41. Sofi A, Muscolino G (2007). Dynamic analysis of suspended cables carrying moving oscillators, *International Journal of Solids and Structures*, 44(21), pp. 6725-6743, ISSN: 0020-7683, DOI: 10.1016/j.ijsolstr.2007.03.004.

42. Spanos P D, Sofi A, Di Paola M (2007). Nonstationary response envelope probability densities of nonlinear oscillators, *Journal of Applied Mechanics, Transactions ASME*, 74(2), pp. 315-324, ISSN: 0021-8936, DOI: 10.1115/1.2198253.

43. Spanos P D, Sofi A, Wang J, Peng B (2006). A method for fatigue analysis of piping systems on topsides of FPSO structures, *Journal of Offshore Mechanics and Arctic Engineering-Transactions of the ASME*, 128(2), pp. 162-168, ISSN: 0892-7219, DOI: 10.1115/1.2185126.

44. Biondi B, Muscolino G, Sofi A (2005). A substructure approach for the dynamic analysis of train-track-bridge system, *Computers & Structures*, 83, pp. 2271-2281, ISSN: 0045-7949, DOI: 10.1016/j.compstruc.2005.03.036.

45. Di Paola M, Muscolino G, Sofi A (2004). Monte Carlo simulation for the response analysis of long-span suspended cables under wind loads, *Wind and Structures, An International Journal*, 7(2), pp. 107-130, ISSN: 1226-6116, DOI: 10.12989/was.2004.7.2.107.

46. Impollonia N, Sofi A (2003). A response surface approach for the static analysis of stochastic structures with geometrical nonlinearities, *Computer Methods in Applied Mechanics and Engineering*, 192(37-38), pp. 4109-4129, ISSN: 0045-7825, DOI: 10.1016/S0045-7825(03)00379-7.

47. Di Paola M, Sofi A (2002). Approximate solution of the Fokker-Planck-Kolmogorov equation, *Probabilistic Engineering Mechanics*, 17(4), pp. 369-384, ISSN: 0266-8920, DOI: 10.1016/S0266-8920(02)00034-6.

48. Sofi A, Borino G, Muscolino G (2002). Dynamic analysis of prestressed cables with uncertain pretension, *Meccanica*, 37(1-2), pp. 67-84, ISSN: 0025-6455, DOI: 10.1023/A.

Book Chapters

49. Muscolino G, Sofi A (2014). Response variability bounds of elastic beams with uncertain parameters. In: B.H.V. Topping and P. Iványi (Editors), *Computational Methods for Engineering Technology*, Saxe-Coburg Publications, Stirlingshire (UK), Vol. 35, Chapter 9, pp. 223-253, ISBN 978-1-874672-65-4.

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Reggio Calabria, 30/04/2023

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