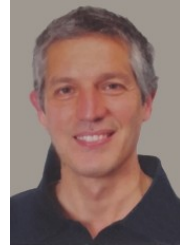


CURRICULUM VITAE

Giuseppe Failla

Personal data

Name: Giuseppe Failla



Academic career

- 2017: On July 13th He is awarded the "National Scientific Qualification" as Full Professor in "Mechanics of Solids and Structures".
- 2015: On July 7th he becomes Associate Professor at the Department of Civil, Energy, Environmental and Materials Engineering, University of Reggio Calabria, Italy.
- 2004: On December 21st he becomes Assistant Professor at the Department of Mechanics and Materials, University of Reggio Calabria, Italy.

Education

- 2002 – 2003: From September 2002 to August 2003, he is awarded a Post-Doctoral Grant on "Identification of Structural Parameters", under the supervision of prof. Adolfo Santini, at the Department of Mechanics and Materials, University of Reggio Calabria, Italy.
- 1998 – 2001: In February 1998, he passes the exam to begin a three-year Ph.D. in "Mechanics of Structures", at the Department of Structural Engineering and Geotechnics (DISEG), University of Palermo, Italy. He passes the final exam in February 2001, defending a thesis entitled: "Approximate Methods for Randomly-Excited Nonlinear Systems: A Volterra Series Method", under the supervision of prof. Mario Di Paola and prof. Pol D. Spanos.
- 1990 – 1997: He graduates in Building Engineering (MSc) at the University of Palermo, Italy, with a final mark of 110/110 cum laude.

Teaching and research activity at foreign institutions

- 2025: He is visiting professor under the "High-End Foreign Experts Project" project at the Department of Structural Engineering, Tongji University, Shanghai, China, from December 1st to December 16th.
- 2002: He is in charge with the course in "Mechanics of Materials" (spring semester), for BSc students pursuing a degree in Civil Engineering (third year of studies, spring semester) at Rice University, Houston, USA.
- 1999 – 2000: From September 1999 to March 2000, he is visiting scholar under the supervision of prof. Pol D. Spanos at the Department of Civil Engineering, Rice University, Houston, USA.

2001 – 2002: From October 2001 to July 2002, he is visiting scholar under the supervision of prof. Pol D. Spanos at the Department of Civil Engineering, Rice University, Houston, USA.

Teaching activity

2015 – present: He is in charge with the course "Structural Mechanics" for BSc students in Civil-Environmental Engineering (12 ECTS) at the University of Reggio Calabria, Italy.

2021 – present: He is in charge with the course "Theory of Structures" for MSc students in Civil Engineering (6 ECTS) at the University of Reggio Calabria, Italy.
2012 – 2017
2008 – 2011

2016 – present: He is in charge with the course "Dynamics of Structures" for MSc students in Civil Engineering (3 ECTS) at the University of Reggio Calabria, Italy.

2003 – 2008: He is in charge with the course "Theory of Structures" for MSc students in Civil Engineering (5 ECTS, MSc) at the University of Reggio Calabria, Italy.

2005 – 2009: He is in charge with the course "Structural Mechanics I" for BSc students in Civil Engineering (5 ECTS) at the University of Reggio Calabria, Italy.

Other work experience

1998: From February to July 1998, he works at the British engineering firm "Gifford and Partners", Southampton, UK, specializing in bridge engineering, under the European Grant Programme "Leonardo da Vinci".

Main services in Academics

2023 – present: Member of the Board of Professors for the PhD course in "Civil, Environmental and Industrial Engineering", University of Reggio Calabria, Italy.

2013 – 2022: Member of the Board of Professors for the PhD course in "Civil, Environmental and Safety Engineering", University of Reggio Calabria, Italy.

2012: Member of the Board of Professors for the PhD course in "Civil, Energy, Environmental and Materials Engineering", University of Reggio Calabria, Italy.

2008 – 2011: Member of the Board of Professors for the PhD course in "Marine, Materials and Structural Engineering", University of Reggio Calabria, Italy.

2006 – 2007: Member of the Board of Professors for the PhD course in "Materials and Structural Engineering", University of Reggio Calabria, Italy.

2019 – present: Member of the Professors-Students Commission at the Department of Civil, Energy, Environmental and Materials Engineering, University of Reggio Calabria, Italy.

- 2010 – 2012:** Representative of Assistant Professors at the School of Engineering, University of Reggio Calabria, Italy.
- 2005 – 2013:** Member of the Board of Evaluators of students' curricula in Civil Engineering, University of Reggio Calabria, Italy.
- 2022:** External examiner of PhD candidate at the School of Engineering, Trinity College Dublin, Ireland.
- 2021:** External examiner of PhD candidate at the School of Engineering, University of Catania, Italy.
- 2020:** External examiner of PhD candidate at the School of Engineering, University of Salerno, Italy.

Supervision of Post-Doc students

- 2024 – present:** Supervisor of Post-Doc student Andrea Francesco Russillo, University of Reggio Calabria, Italy. Title of the research project: "Computational Modelling and Experimental Validation of Locally Resonant Metamaterial Foundations for Structural Safety of Masonry Structures ". Time duration: 24 months.
- 2024 – 2025:** Supervisor of Post-Doc student Andrea Burlon, University of Reggio Calabria, Italy. Title of the research project: "Design and Computational Modelling of Innovative Metamaterial Structural Components with Local Resonance". Time duration: 12 months.
- 2020 – 2022:** Supervisor of Post-Doc student Andrea Burlon, University of Reggio Calabria, Italy. Title of the research project: "Design and Computational Modelling of Novel Locally Resonant Metamaterials". Time duration: 24 months.

Supervision of PhD students

- 2023 – present:** Supervisor of PhD student Luigi Cartone, University of Reggio Calabria, Italy. Title of the research project: "Innovative Locally Resonant Multi-Layer Foundations for Seismic Protection of Masonry Structures". Time duration: 36 months.
- 2019 – 2022:** Supervisor of PhD student Andrea Francesco Russillo, University of Reggio Calabria, Italy. Thesis title: "A Dynamic-Stiffness Approach to the Dynamics of Locally Resonant Metamaterials". Time duration: 36 months.
- 2016 – 2019:** Co-supervisor of PhD student Mina Ghassempour, University of Reggio Calabria, Italy. Thesis title: "Fatigue Life of Bottom-Fixed Offshore Wind Turbines Equipped with Tuned Mass Damper". Time duration: 36 months.
- 2015 – 2018:** Co-supervisor of PhD student Andrea Burlon, University of Reggio Calabria, Italy. Thesis title: "A Generalised Function Approach to the Dynamic Analysis of Coupled Continuous-Discrete Systems under Deterministic and Stochastic Loads". Time duration: 36 months.

- 2013 – 2016:** Co-supervisor of PhD student Carlo Ruzzo, University of Reggio Calabria, Italy. Thesis title: "A New Approach for Intermediate-Scale Open-Sea Experimental Activities on Offshore Structures: Application to Spar Buoys for Wind Energy Exploitation via a 1:30 Scale Activity". Time duration: 36 months.
- 2011-2015:** Co-supervisor of PhD student Natale Alati, University of Reggio Calabria, Italy. Thesis title: "Seismic Analysis of Offshore Wind Turbines on Fixed Support Structures". Time duration: 36 months.

Supervision of research scholars

- 2023:** Supervisor of research scholar Andrea Burlon, University of Reggio Calabria, Italy. Scholarship title: "Development and Modelling of Composite Metamaterial Foundation Systems with Local Resonance", within the project PRIN 2017J4EAYB: "Multiscale Innovative Materials and Structures (MIMS)". Time duration: 6 months.
- 2019:** Co-supervisor of research scholar Andrea Burlon, University of Reggio Calabria, Italy. Scholarship title: "Development of Innovative Locally Resonant Devices for Vibration Mitigation in Civil Structures", within the project "GREEN PORTS", POR REGIONE CALABRIA FESR 2007/2013. Time duration: 6 months.
- 2016 – 2017:** Co-supervisor of research scholar Fabio Santangelo, University of Reggio Calabria, Italy. Scholarship title: "Dynamic Analysis of Offshore Wind Turbines on Fixed and Floating Supports", within the project "GREEN PORTS", POR REGIONE CALABRIA FESR 2007/2013. Time duration: 6 months.
- 2016 – 2017:** Supervisor of research scholar Alfredo Cundari, University of Reggio Calabria, Italy. Scholarship title: "Protection of Masonry Architectural Heritage from Natural Hazards", within the project "SIMONA - Systems and Technologies for Monitoring Underwater and Terrestrial Areas of Cultural Interest" financed by POR REGIONE CALABRIA FESR 2007/2013. Time duration: 9 months.
- 2015 – 2016:** Supervisor of research scholar Fabio Santangelo, University of Reggio Calabria, Italy. Scholarship title: "Risk Assessment of Archaeological Assets", within the project "SIMONA - Systems and Technologies for Monitoring Underwater and Terrestrial Areas of Cultural Interest" financed by POR REGIONE CALABRIA FESR 2007/2013. Time duration: 12 months.

Research projects

- 2023 – present:** PRIN 2022: "Innovative Metamaterial Components and Absorbers for Vibration Mitigation (METAVIBRA)". Project ID: 2022LA43E2. PI: prof. A. Pirrotta. Role: Leader of Research Unit at the University of Reggio Calabria, Italy.

2023 – 2025:	COST ACTION CA20109: "Modular Energy Islands for Sustainability and Resilience". Action Chair: prof. C. Rebelo. Role: Participant in WG2 "Modular Offshore Floating Energy Islands".
2022 – present:	TECH4YOU/SPOKE 4, Pilot Project 4.7.1: "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". Role: Leader of WP6 and WP7 within Pilot Project "PP 4.7.1" at the University of Reggio Calabria, Italy.
2019 – 2023:	PRIN 2017: "Multiscale Innovative Materials and Structures (MIMS)". Project ID: 2017J4EAYB. PI: prof. F. Fraternali. Role: Leader of Research Unit at the University of Reggio Calabria, Italy.
2019 – 2022:	PON R&I 2014-2020: "Innovative Devices for Motion Mitigation in Floating Wind Turbines". Research Contract ID: PON-AIM1805501-2. Role: Participant.
2018 – 2022:	HORIZON2020 BG-04-2017: "The Blue Growth Farm: Development and Demonstration of an Automated, Modular and Environmentally Friendly Multi-Functional Platform for Open Sea Farm Installations of the Blue Growth Industry", Grant Agreement No. 774426. Role: Participant.
2016 – 2020:	PRIN 2015: "Advanced Mechanical Modeling of New Materials and Structures for the Solution of 2020 Horizon Challenges". Project ID: 2015JW9NJT_001. PI: prof. M. Di Paola. Role: Participant.
2014 – 2015:	PON R&C 2007-2013: "Aquasystem: Innovative Procedures and Technologies for Planned and Integrated Management of Water Resources, Energy Optimization and Quality Control in the Integrated Water Cycle". Project ID: PON04a2_f. PI: prof. P. Filianoti. Role: Participant.
2012 – 2016:	PRIN 2010-2011: "Dynamics, Stability and Control of Flexible Structures". Project ID: 2010MBJK5B_008. PI: prof. A. Luongo. Role: Participant.
2011 – 2015:	PON R&C 2007-2013: "Innovative Materials and Technologies for Territory and Environment Protection (TEMADITUTELA)". Project ID: PON01_01869. PI: prof. N. Moraci. Role: Participant.
2003 – 2005:	PRIN 2003: "Non-destructive testing for identification of materials and structures. PI: prof. A. Morassi. Role: Participant.

Awards

- The Italian National Agency for the Evaluation of Universities and Research Institutes (ANVUR) evaluates:
 - out of the 4 publications presented for the period 2015-2019, 2 publications as "excellent and extremely relevant" and 2 publications as "excellent".
 - the 2 publications presented for the period 2011-2014 as "excellent".
 - the 3 publications presented for the period 2004-2010 as "excellent".

- He is listed in the Stanford's list of top 2% most-cited scientists for career-long and single recent year impacts, for the following years:
 - Career-long impact: 2024, 2023, 2022, 2021, 2020.
 - Single recent year: 2024, 2023, 2022, 2021, 2020, 2019.
- He is awarded the Individual Grant for Basic Research (3000 Euros) from the Italian Ministry of University and Research, Italy, in 2017 (ANVUR Call n. 20/2017).

Patents

- Mitigation device for rigid oscillations in floating structures. Patent No. 202020000003916, 2020.

Invited lectures, seminars and talks

- Seminar at Tongji University, December 9th, 2025, Shanghai, China. Title: "Novel concepts of tuned mass devices for floating wind turbines".
- Seminar at Tongji University, December 4th, 2025, Shanghai, China. Title: "Locally resonant metamaterial components for vibration control".
- Invited talk at "IUTAM Symposium GA22-11 Nonlinear dynamics of systems and structures for green energy generation", June 02-05, 2025, Senigallia (Ancona), Italy. Title: "A floating absorber for floating offshore wind turbines on triple spar supports".
- Invited talk at "EUROMECH COLLOQUIUM 642: International Colloquium on Multiscale and Multiphysics Modelling for Advanced and Sustainable Materials", September 23-27, 2024, Rome, Italy. Title: "A novel concept of water-tank seismic metabarrier".
- IAAM Award Lecture at the "Advanced Materials World Congress", October 11-14, 2022, Ulrika, Sweden. Title: "New concept of metamaterial multi-plate structure".

Editorial activity

- Editorial Board Member of Wind Energy and Engineering Research (Elsevier) since 2024.
- Associate Editor of Frontiers in Materials, special section "Metamaterials", since 2022.
- Editorial Board Member of Wind (MDPI) since 2021.
- Editorial Board Member of Vibration (MDPI) since 2017.
- Editorial Board Member of Coupled Systems Mechanics (Techno-Press) since 2016.
- Guest Editor of a special issue of Philosophical Transactions of the Royal Society A, "Current Developments in Elastic and Acoustic Metamaterials Science - Parts 1-2", September 2024 (vol. 382, Issues 2278-2279) with prof. A. Marzani, prof. A. Palermo, dr. A.F. Russillo, prof. D. Colquitt.
- Guest Editor of a special issue of Meccanica, "New Prospects in Non-Conventional Modelling of Solids and Structures", March 2022 (vol. 57, n. 4), with prof. M. Di Paola and prof. W. Sumelka.
- Guest Editor of a special issue of Philosophical Transactions of the Royal Society A, "Advanced Materials Modelling via Fractional Calculus: Challenges and Perspectives", May 2020 (vol. 378, n. 2172), with prof. M. Zingales.
- Guest Editor of a special issue of Philosophical Transactions of the Royal Society A, "New Perspectives in Offshore Wind Energy", February 2015 (vol. 373, n. 2035), with prof. F. Arena.

- Expert for the Research Executive Agency (REA) of the European Commission in the evaluation of "Marie Skłodowska-Curie Individual Fellowships" proposals. Number of proposals evaluated: 109 (since 2016 to present).
- Reviewer for the following journals (among others): *Mechanical Systems and Signal Processing*, *Computer Methods in Applied Mechanics and Engineering*, *Engineering Structures*, *Ocean Engineering*, *Bulletin of Earthquake Engineering*, *Journal of Sound and Vibration*, *Applied Mathematical Modelling*, *European Journal of Mechanics A/Solids*, *Thin-Walled Structures*, *Communications in Nonlinear Science and Numerical Simulation*, *Probabilistic Engineering Mechanics*, *International Journal of Non-Linear Mechanics*, *Journal of Vibration and Acoustics*, *Meccanica*, *Journal of Engineering Mechanics*, *Archive of Applied Mechanics*, *Finite Elements in Analysis and Design*, *Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering*, *Experimental Mechanics*.

Membership of scientific societies

- Engineering Mechanics Institute (EMI-ASCE) since 2023.
- Italian Association of Theoretical and Applied Mechanics (AIMETA) since 2017.
- European Mechanics Society (EUROMECH) since 2017.
- Inter-University Centre of Theoretical and Experimental Dynamics del (CIDIS) (University of Palermo, University of Messina, University of Reggio Calabria, Kore University of Enna) since 2014.

Organisation of mini-symposia in international conferences

- SS01: "Emerging Trends in Mechanical Metamaterials", 11th International Congress of Croatian Society of Mechanics (11th ICCSM), September 30-October 3, 2025, Vodice, Croatia.
- MS026: "Non-conventional models for nano- and micro-mechanics", ECCOMAS 8th Young Investigators Conference 2025 (YIC 2025), September 17-19, 2025, Pescara, Italy.
- MS032: "Vibration mitigation via innovative materials and devices", June 01-06, 2025, University of Southern California, Los Angeles, CA, United States.
- MS059: "Recent Trends in Elastic and Acoustic Metamaterials", 9th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2024), June 3-7, 2024, Lisbon, Portugal.
- MS35: "Challenges and Emerging Trends in Vibration Mitigation", Engineering Mechanics Institute 2023 International Conference (EMI 2023 IC), August 27-30, 2023, Palermo, Italy.
- MS2: "Advances in the Dynamic Response Analysis, Monitoring, and Mitigation of Wind Turbines", 9th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2023), June 12-14, 2023, Athens, Greece.
- MS1201: "Non-Conventional Methods for Solid and Fluid Mechanics", 15th World Congress on Computational Mechanics & 8th Asian Pacific Congress on Computational Mechanics (WCCM-APCOM 2022), July 31 - August 5, 2022, Yokohama, Japan.
- MS6: "New Prospects in Vibration Mitigation Strategies", 16th International Conference on Dynamical Systems: Theory and Applications (DSTA 2021), December 6-9, 2021, Lodz, Poland.
- MS78: "Non-Conventional Methods for Solid Mechanics", 8th European Congress on Computational Methods in Applied Science and Engineering (ECCOMAS 2020), July 19-24, 2020, Paris, France.
- MS14: "Non-Conventional Methods for Solid Mechanics", 4th Polish Congress of Mechanics and the 23rd International Conference on Computer Methods in Mechanics (PCM-CMM 2019), September 8-12, 2019, Krakow, Poland.

- MS3: "Innovative Strategies for Vibration Control and Mitigation", 15th International Conference on Dynamical Systems: Theory and Applications (DSTA 2019), December 2-5, 2019, Lodz, Poland.
- MS055: "Fractional Computational and Mathematical Models for Advanced Material Behavior", 9th International Conference on Computational Methods (ICCM2018), August 6-10, 2018, Rome, Italy.

Membership of scientific/organising committees of international conferences

- International Symposium on Reliability Engineering and Risk Management (ISRERM) October 18-21, 2024, Hefei, China (International Technical Committee).
- 2DMATFORUM2024, March 04-06, 2024, Florence, Italy, (Organizing Committee).
- 2nd Global Summit on Metamaterials, Nanophotonics and Plasmonics (METAMAT2024), February 19-21, 2024, Rome, Italy, (Organizing Committee).
- 7th International Conference on Polymer Science and Composite Materials (PSCM 2023), October 05-06, 2023, Rome, Italy (Organizing Committee).
- Global Meet on Metamaterials and Nanophotonics (GMMETA2023), September 14-16, 2023, Lisbon, Portugal, (Scientific Committee).
- POLYMERFORUM2023, September 04-06, 2023, San Francisco, USA, (Organizing Committee).
- 3rd Global Summit on Graphene and 2D Materials (2DMAT2023), August 24-26, 2023, London, UK, (Organizing Committee).
- Global Congress on Materials Science and Engineering (GCMSE2023), August 03-05, 2023, London, UK, (Scientific Committee).
- 3rd Global Experts Conference on Applied Science, Engineering and Technology (GECASET-23), July 24-26, 2023, Osaka, Japan, (Organizing Committee).
- Computational and Mathematical Methods in Engineering, June 24-25, 2023, Nanjing, China, (Technical Program Committee).
- 2023 International Conference on Advances in Computer Science and Engineering Technology (ACSE2023), June 24-25, 2023, Guangzhou, China, (Technical Program Committee).
- 2nd Global Summit on Semiconductors, Optoelectronics and Nanostructures (GSSON2023), May 22-24, 2023, Brussels, Belgium, (Organizing Committee).
- 2nd International Meet on Metamaterials and Nanophotonics (METAMEET 2023), March 16-18, 2023, Rome, Italy, (Scientific Committee).
- 4th International Conference on Mechanical Engineering (MECN 2022), December 17-18, 2022, Dubai, UAE, (Program Committee).
- 4th International Conference on Advanced Materials and Ecological Environment (AMEE2022), December 17-18, 2022, Hubei Zhongke Institute of Geology and Environment Technology, Webinar (Zoom), (Technical Program Committee).
- 10th Annual International Conference on Material Science and Environmental Engineering (MSEE 2022), November 25-27, 2022, Nanjing, Jiangsu, China, (Technical Program Committee).
- 10th Annual International Conference on Material Science and Engineering (ICMSE 2022), September 16-18, 2022, Hangzhou, Zhejiang, China, (Technical Program Committee).
- International Conference on Materials Science, Engineering & Technology (MSI2022), September 07-09, 2022, Singapore, (Conference Committee).
- 8th Annual International Workshop on Materials Science and Engineering (IWMSE 2022), May 13-15, 2022, Wuhan, Hubei, (Technical Program Committee).
- 1st International Conference on Intelligent Systems and Applications (ICISA 2022), MIT World Peace University, May 04-06, 2022, Pune, India, (Technical Program Committee).

- 3rd International Conference on Advanced Materials and Ecological Environment (AMEE2021), December 18-19, 2021, Webinar (Zoom), (Technical Program Committee).
- International Conference on Ecology and Ocean Engineering (ICEOE 2021), December 17-18, 2021, Wuhan, China, (Technical Program Committee).
- 2021 International Conference on Advanced Technologies and Applications of Modern Industry (ATAMI 2021), November 19-21, 2021, Wuhan, China, (Technical Program Committee).
- 2nd International Conference on Physics and Engineering Mathematics (ICPEM2021), November 7-8, 2021, Beijing, China, (Technical Program Committee).
- Global Summit and Expo on Aerospace and Mechanical Engineering (GSEAME2021), October 18-20, 2021, Valencia, Spain, (Organizing Committee).
- 4th International Conference on Applied Mathematics, Modeling and Simulation (AMMS2021), September 17-18, 2021, Guangzhou, China, (General Chair).
- 6th International Technical Conference on Frontiers of Hydraulic and Civil Engineering Technology (HCET 2021), August 28-29, 2021, Sanya, China, (Scientific Committee).
- 2021 International Conference on Mathematics, Modeling, Simulation, Optimization and Computation (MMSOC 2021), June 29-30, 2021, Chengdu, China, (Technical Committee).
- 4th International Conference on Mechanical Engineering (MEN 2021), June 26-27, 2021, Sydney, Australia, (Program Committee).
- 4th International Conference on Bioscience & Engineering (BIOSE 2021), June 26-27, 2021, Sydney, Australia, (Program Committee).
- 2021 International Conference on Advanced Energy, Power and Electrical Engineering (AEPEE2021), April 11-12, 2021, Beijing, China, (General Chair and Publication Co-Chair).
- 8th International Conference on Mechanical Engineering (Meche 2021), March 27-28, 2021, Sydney, Australia, (Program Committee).
- 7th International Conference on Bioscience & Engineering (BIOE 2021), February 20-21, 2021, Dubai, UAE, (Program Committee).
- 4th International Conference on Trends in Mechanical Engineering (MECE 2020), December 12-13, 2020, Dubai, UAE, (Program Committee).
- 4th International Conference on Materials Science and Mechanical Manufacturing Engineering (MSMME 2020), June 19-21, 2020, Hangzhou, China, (Technical Committee).
- Stochastic Mechanics and Meccanica Stocastica (SM&MS 2016), June 12-15, 2016, Capri, Italy, (Scientific Committee).

Research activity

Research activity has been carried out in conjunction with Italian and foreign researchers. He has co-authored publications on international journals with referees, books and proceedings of international conferences. Here follows the list of publications, with a brief summary of the research subjects.

Research subjects

Dynamics of metamaterials

Non-local elasticity theories with applications to nanotechnology

Vibration mitigation of structures via tuned mass devices

Dynamics of fixed and floating offshore wind turbines

Structural dynamics of systems with fractional viscoelastic behaviour

Structural dynamics of non-linear systems under stochastic excitations

Modal analysis methods

Static and dynamic analyses of structures with internal discontinuities

Spectral analysis of non-stationary processes via wavelets
 Structural damage identification via wavelets
 Stochastic differential calculus methods for systems under alpha-stable processes
 Nonlinear static analysis of masonry structures

Publications on international journals with referees

1. Russillo A.F., **Failla G.** (2026) Seismic metamaterials for Rayleigh wave attenuation: A novel concept of soil-embedded water-tank metabarrier. *International Journal of Solids and Structures*, 324, 113656. doi: 10.1016/j.ijsolstr.2025.113656
2. Russillo A.F., **Failla G.** (2025) A novel computational framework for wave propagation analysis of periodic 3D small-size solids. *International Journal of Engineering Science*, 217, 104350. doi: 10.1016/j.ijengsci.2025.104350
3. Russillo A.F., **Failla G.**, Sumelka W. (2025) On the wave propagation in unbounded space-fractional elastic solids and identification of its intrinsic microstructure based on Lagrange lattice. *Mechanics Research Communications*, 150, 104564. doi: 10.1016/j.mechrescom.2025.104564
4. Burlon A., **Failla G.** (2025) Wave propagation and Bragg gaps formation in periodically supported coupled bending-torsional thin-walled beams. *Thin-Walled Structures*, 216, Part A, 113496. doi: 10.1016/j.tws.2025.113496
5. Burlon A., Di Paola M., **Failla G.**, Spanos P.D. (2025) A discretized paths-based sequential integration method involving the self-similarity of the fractional Brownian motion. *Probabilistic Engineering Mechanics*, 80, 103767. doi: 10.1016/j.probenmech.2025.103767
6. Alotta G., Russillo A.F., **Failla G.** (2025) Elastic wave propagation in periodic stress-driven nonlocal Timoshenko beams. *International Journal of Solids and Structures*, 306, 113103. doi: 10.1016/j.ijsolstr.2024.113103
7. Russillo A.F., Arena F., **Failla G.** (2024) Water-tank metabarrier for seismic Rayleigh wave attenuation. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 382, 20230363. doi: 10.1098/rsta.2023.0363
8. **Failla G.**, Marzani A., Palermo A., Russillo A.F., Colquitt D. (2024) Current developments in elastic and acoustic metamaterials science. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 23, 382(2279), 20240038. doi: 10.1098/rsta.2024.0038
9. **Failla G.**, Marzani A., Palermo A., Russillo A.F., Colquitt D. (2024) Current developments in elastic and acoustic metamaterials science. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 382(2278), 20230369. doi: 10.1098/rsta.2023.0369
10. Sciutteri S., Russillo A.F., Santoro R., Ricciardi G., **Failla G.** (2024) An inerter-based concept of locally resonant fluid-conveying pipe. *European Journal of Mechanics - A/Solids*, 106, 105316. doi: 10.1016/j.euromechsol.2024.105316
11. Russillo A.F., Kouznetsova V.G., **Failla G.**, Geers M.G.D. (2024) A reduced-order computational homogenization framework for locally resonant metamaterial structures. *Computational Mechanics*, 74, 743-762. doi: 10.1007/s00466-024-02453-9
12. **Failla G.**, Burlon A., Russillo, A.F. (2024) A novel metamaterial multiple beam structure with internal local resonance. *Acta Mechanica*, 235(9), 5885-5903. doi: 10.1007/s00707-024-04006-w
13. Alotta G., Laface V., **Failla G.**, Ruzzo C., Arena F. (2023) A novel concept of floating absorber for motion mitigation in floating offshore wind turbines. *Engineering Structures*, 294, 116554. doi: 10.1016/j.engstruct.2023.116554.
14. Santoro R., Mazzeo M., **Failla G.** (2023). A computational framework for uncertain locally resonant metamaterial structures. *Mechanical Systems and Signal Processing*, 190, 110094, doi: 10.1016/j.ymssp.2023.110094
15. Russillo A.F., **Failla G.** (2023). Dynamics of hierarchical beam lattice structures by an exact reduced-order dynamic-stiffness model. *Thin-Walled Structures*, 184, 110496, doi: 10.1016/j.tws.2022.110496

16. Burlon A., **Failla G.** (2023). On the band gap formation in locally-resonant metamaterial thin-walled beams. *European Journal of Mechanics - A/Solids*, 97, 104798, doi: 10.1016/j.euromechsol.2022.104798
17. Alotta G., Biondo C., Giaralis A., **Failla G.** (2023). Seismic protection of land-based wind turbine towers using the tuned-inerter damper. *Structures*, 51, 640-656, doi: 10.1016/j.istruc.2023.03.004
18. Burlon A., **Failla G.** (2022). On the dynamics of high-order beams with vibration absorbers. *Applied Mathematical Modelling*, 112, 822-843, doi: 10.1016/j.apm.2022.07.020
19. Russillo A.F., **Failla G.**, Barretta R., Marotti de Sciarra F. (2022). On the dynamics of 3D nonlocal solids. *International Journal of Engineering Science*, 180, 103742, doi: 10.1016/j.ijengsci.2022.103742
20. Russillo A.F., **Failla G.**, Alotta G. (2022). Ultra-wide low-frequency band gap in locally-resonant plates with tunable inerter-based resonators. *Applied Mathematical Modelling*, 106, 682-695, doi: 10.1016/j.apm.2022.02.015
21. Laface V., Alotta G., **Failla G.**, Ruzzo C., Arena F. (2022). A two-degree-of-freedom tuned mass damper for offshore wind turbines on floating spar supports. *Marine Structures*, 83, 103146, doi: 10.1016/j.marstruc.2021.103146
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Main collaborations

- Prof. P.D. Spanos, Rice University, Houston, USA
- Prof. M. Collu, University of Strathclyde, Glasgow, UK
- Prof. A. Giaralis, City University of London, UK
- Prof. D. Yurchenko, Heriot-Watt University, Edinburgh, UK
- Prof. C. Adam, University of Innsbruck, Innsbruck, Austria
- Prof. F. Magalhães, University of Porto, Portugal
- Prof. I. Kougiumtzoglou, Columbia University, New York, USA
- Prof. M.G.D. Geers, Eindhoven University of Technology, Eindhoven, The Netherlands
- Prof. V. Kouznetsova, Eindhoven University of Technology, Eindhoven, The Netherlands

Reggio Calabria, December 26, 2025


Prof. Giuseppe Failla