

ANNAMARIA PAU

Curriculum Vitae

PRESENT AFFILIATION

Associate Professor ICAR/08, Solids and Structural Mechanics, Department of Structural and Geotechnical Engineering, Sapienza University of Rome

National Scientific qualification as full professor in the Italian higher education system in Structural mechanics received on February 6th 2023

Member of the academic board of the PhD in “Engineering and Applied Science for Energy and Industry”, Department of Astronautics, Electric and Energy Engineering, Sapienza University of Rome (2017 – to date)

Member of the academic board of the Master Degree in Innovation Engineering, School of Civil and Industrial Engineering, Sapienza University

Member of the restricted council of the Department of Structural and Geotechnical Engineering (elective office, since 12.12.21, for the three years 2021-24), Sapienza University

Member of the restricted council of the school of Civil and Industrial Engineering (elective office, for the three years 2022-25), Sapienza University

Associate Editor of the Journal of Vibration and Control, Sage Publications

Research interests: structural identification and characterization of dynamic response of undamaged and damaged structures; wave propagation in structures and solids; applications of ultrasonic wave propagation to damage image reconstruction, stress monitoring, material characterization; multiscale modelling of structured materials with microstructured/micromorphic continua, metamaterials.

General Information

Name	Annamaria Pau
E-mail	annamaria.pau@uniroma1.it
Spoken languages	Italian – native speaker
	English - C2 level, Cambridge Certificate of Proficiency in English
	French

Part I - Education

Type	Year	Institution	Notes
PhD	2004	Sapienza University of Rome	PhD in Structural Engineering, title of final dissertation: “Direct and inverse problem of the response of a large structure to an impulsive load”
University Degree	1999	University of Cagliari	Master Degree in Civil Engineering 110/110 summa cum laude

Part II - Appointments

IIA – Academic Appointments

Start	End	Institution	Position
11/2020	to date	Sapienza University of Rome, Department of Structural and Geotechnical Engineering	Associate professor
12/2008	10/2020	Sapienza University of Rome, Department of Structural and Geotechnical Engineering	Assistant professor
2006	2008	Sapienza University of Rome, Department of Structural and Geotechnical Engineering	Postdoctoral fellow working on the topic: Dynamic characterization of complex systems and reduced nonlinear models
2004	2006	Sapienza University of Rome, Department of Structural and Geotechnical Engineering	Research assistant Contracts completed: Direct and inverse analysis of nonproportionally damped dynamical systems; Analysis of the experimental dynamic response of the Colosseum; Dynamic investigations of structural members; Analysis of wave propagation.

IIB – Other Appointments

Start	End	Institution	Position
1999	2001	Italferr s.p.a.	Reviewer of projects of railway infrastructures.

Part III - Courses taught

Year	Institution	Lecture/Course
2022/23	Sapienza University of Rome, graduate curriculum in Architecture	Structural Mechanics (100 hours)
2022/23	Sapienza University of Rome, undergraduate curriculum in “Project Management”	Mechanics of Solids and Structures (48 hours)
July 2022	PhD in Structural Engineering, Sapienza University of Rome	Ultrasonic wave propagation in solid media: applications to stress monitoring, imaging and materials characterization. (6 hours)
April-May 2022	PhD in Engineering and Applied Science for Energy and Industry, Sapienza University of Rome	Elements of Structural dynamics and Modal Testing (30 hours)
2021/22	Sapienza University of Rome, graduate curriculum in Architecture	Structural Mechanics (100 hours)

2021/22	Sapienza University of Rome, undergraduate curriculum in "Project Management"	Mechanics of Solids and Structures (48 hours)
July 2021	PhD in Structural Engineering, Sapienza University of Rome	Ultrasonic wave propagation in solid media: applications to stress monitoring, imaging and materials characterization. (6 hours)
2020/21	Sapienza University of Rome, undergraduate curriculum in "Techniques for the land and built environment"	Elements of Structural and Solids Mechanics (60 hours)
2020/21	Sapienza University of Rome, undergraduate curriculum in "Project Management"	Mechanics of Solids and structures (48 hours)
2020/21	Sapienza University of Rome, undergraduate curriculum in "Scienze dell'Architettura"	Structural Mechanics (100 hours)
15/07-3/08 2019	XII Asia-Pacific-Euro Summer School on Smart Structure Technology, Sapienza, Roma, progetto DESDEMONA	Students'Tutor for <i>Structural Identification and monitoring of the Annibaldi pedestrian bridge</i> (16 hours)
2019/20	Sapienza University of Rome, undergraduate curriculum in "Project Management"	Structural Mechanics (48 hours)
2019/20	Sapienza University of Rome, undergraduate curriculum in "Scienze dell'Architettura"	Structural Mechanics (100 hours)
2018/19	Sapienza University of Rome, undergraduate curriculum in "Scienze dell'Architettura"	Structural Mechanics (100 hours)
2017/18	Sapienza University of Rome, undergraduate curriculum in "Scienze dell'Architettura"	Structural Mechanics (100 hours)
2016/17	Sapienza University of Rome, undergraduate curriculum in "Scienze dell'Architettura"	Structural Mechanics (100 hours)
2016/17	Sapienza University of Rome, undergraduate curriculum in "Scienze dell'Architettura"	Experimental Tests on Building Materials (8 hours, Sept 27-28 2017), course taught to the pool of students selected for the path of excellence
2017 Jan 31 st -Feb 4 th	Democritus University of Thrace, Xanthi, Greece, post graduate course taught to the students of the Master of Science in Civil Engineering.	Guided wave propagation in solid media: applications to stress monitoring, defect characterization and imaging (6 hours)
2015/16	Sapienza University of Rome, undergraduate curriculum in "Scienze dell'Architettura"	Structural Mechanics (100 hours)
2014/15	Sapienza University of Rome,	Statics (100 hours)

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	undergraduate curriculum in “Scienze dell’Architettura”	
2013/14	Sapienza University of Rome, undergraduate curriculum in “Scienze dell’Architettura”	Statics (100 hours)
2012/13	Sapienza University of Rome, undergraduate curriculum in “Scienze dell’Architettura e della città”	Mechanics of Solids and Structures (75 hours)
2011/12	Sapienza University of Rome, undergraduate curriculum in “Scienze dell’Architettura e della città”	Mechanics of Solids and Structures (75 hours)
2010/11	Sapienza University of Rome, undergraduate curriculum in “Scienze dell’Architettura e della città”	Structural Mechanics (75 hours)
2009/10	Sapienza University of Rome, undergraduate curriculum in “Scienze dell’Architettura e della città”	Mechanics of Solids and Structures (125 hours)
2008/09	Sapienza University of Rome, undergraduate curriculum in “Scienze dell’Architettura e della città”	Second semester of the course: Mechanics of Solids and Structures (62 hours)
2008/09	Sapienza University of Rome, undergraduate curriculum in Architecture	Continuum Mechanics (50 hours).

Supervision of degree and PhD dissertations, Sapienza University of Rome

Advisor of PhD students in Engineering and Applied Science for Energy and Industry:

- Shayesteh Naghinajad (2020/21 -), title of the dissertation *3D ultrasonic tomography for non-destructive structural inspection and image reconstruction*
- Masood Mohandes (2021/22 -)
- Andrea Massaccesi (2021/22 -)
- Meng Wang (2022/23 -)

Advisor of graduate dissertations in Mechanical Engineering

Meng Wang, *Numerical modelling of wave propagation in prestressed media*, January 2022
Rui Ai, *Modelling of the interaction between sound waves and a porous plate*, April (tentative) 2023

Dissertations in Scienze dell’architettura:

Alessandro Colitta, *Dynamic response of a building subjected to base displacements*, March 2020

Vincenzo Iuliucci, *Qualitative design of the reinforced concrete shell roof of a sport arena*, January 2019

Co-supervisor of dissertations in Scienze dell'Architettura

Mihai Jeroaea, *Design of geodetic structures: the case of a greenhouse*, supervisor Serena Baiani, July 2018

Claudia Attolini, *Redevelopment of a dismissed area in Flaminio district, Rome*, supervisor Serena Baiani, December 2019

Part IV - Awards and Honors

Year	Title
2022	Best reviewer award, in recognition of the distinguished service to the ASME Journal of Vibration and Acoustics.
2011	Sapienza Ricerca Award for young researchers in the field of Engineering and Architecture. Prize awarded to the research "Dynamic characterization and structural monitoring of monuments".
2008/09	Grants for the participation to the following courses (SICON project – FP6 - MOBILITY)
	Nonlinear Dynamics and Control of Structural and Mechanical Systems, February 18-22 2008, Technische Universität Wien, Austria
	Advanced Nonlinear Dynamics and Chaotic Dynamical Systems, March 30 – April 3 2009, ENTEPE, Lyon, France
	Vibration Testing, Identification of Linear and Nonlinear Systems, July 6-10 2009, Université de Liège, Belgium

Part Va – Funding involving national and international research collaborations.

Grants as participant

Year	Title and PI	Program and role	Grant value
2021	Advanced Methods for the Mechanical Modeling of Heritage Structures. Materials, 36 months, PI Patrizia Trovalusci	Ateneo Sapienza – participant	73 787 €
2019	Vibration mitigation via advanced engineered devices and materials, 36 months, PI Walter Lacarbonara	Ateneo Sapienza - participant	63 187 €
2018	DESDEMONA DEtection of Steel Defects by Enhanced MONitoring and Automated procedure for self-inspection and maintenance, 36 months, PI Vincenzo Gattulli	Commissione Europea, Research Funds for Coal and Steel - participant	226 800 €
2017	Shape morphing. From advanced differential geometry to applications in engineering and architecture, 24 months, PI Antonino Favata	Ateneo Sapienza - participant	9 000 €
2016	Innovative integrated approaches for damage identification in buildings, 24 months, PI Francesco Romeo	Ateneo Sapienza - participant	11 000 €

2015	Identification and diagnostics of complex structural systems, 36 months, PI Fabrizio Vestroni	PRIN - participant	116.764 €
2015	Identification techniques for the monitoring of complex structures and materials, 24 months, PI Danilo Capecchi	Ateneo Sapienza - participant	32 000 €
2014	Damage Detection Techniques and Innovative Retrofitting of Monumental Structures, 24 months, PI Achille Paolone	Awards Sapienza - participant	48 000 €
2013	Advanced mechanical models for the analysis of composite materials: phenomenological, theoretical and computational aspects, 12 months, PI Patrizia Trovalusci	Ateneo Sapienza - participant	29 946 €
2011	Composite materials in engineering and architecture: multiscale/multifield models for the description of static and dynamic response, 12 months, PI Patrizia Trovalusci	Ateneo Sapienza - participant	11 000 €
2010	Multiscale-multifield models for the modelling of composite materials. Applications to engineering and architecture, 12 months, PI Patrizia Trovalusci	Ateneo Sapienza - participant	9 000 €
2009	Structural dynamics of slender structures, identification and control of the response, 12 months, PI Fabrizio Vestroni	Ateneo Sapienza - participant	16 200 €
2009	Dynamic response of linear and nonlinear structures: modelling, testing and identification, 24 months, PI Fabrizio Vestroni	PRIN - participant	95 021 €
2007	Linear and nonlinear structural dynamics phenomena: from modelling to experimental tests, 24 months, PI Fabrizio Vestroni	PRIN - participant	49 700 €

**Part Vb – Funding involving national and international research collaborations.
Grants as principal investigator or scientific advisor**

Year	Title and PI	Program	Grant value
2022	Quantitative monitoring of solids, structures and systems with waves and vibration, 36 months	Ateneo Sapienza	3 000 €
2022	Bayesian inference in damage	Ateneo Sapienza avvio alla	1 300 €

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	identification based on the observation of modal quantities, Junior researcher: Masood Mohandes, Scientific advisor: Annamaria Pau	ricerca	
2022	Recent and emerging ultrasound technologies towards affordable medical imaging, PI for Sapienza: Annamaria Pau	CIVIS: seed funding for a joint project with African partner universities	1 500 €
2021	3D ultrasonic tomography for non-destructive structural inspection and image reconstruction, Junior researcher: Shayesteh Naghinajad, Scientific advisor: Annamaria Pau	Ateneo Sapienza avvio alla ricerca	1 000 €
2020	Composite materials and structures. Multiscale-multifield modelling of static and dynamic response and ultrasonic characterization of mechanical properties, 36 months – PI Annamaria Pau	Ateneo Sapienza	13 000 €
2018	Nondestructive techniques for damage detection, stress and stability monitoring of structural elements, 36 months – PI Annamaria Pau	Ateneo Sapienza	4 000 €
2018	Identification of the mass of travelling railway carriages, 6 months – PI Annamaria Pau	Acesystem	9 000 €
2017	Grant of the Italian Ministry of Education, University and Research for the funding of fundamental research, 36 months - PI Annamaria Pau	FFABR – Miur	3 000 €
2016	Dynamic characterization of materials and 3D visualization of discontinuities in solid media, 24 months, Junior researcher: Dimitra Achillopoulou - Scientific Advisor: Annamaria Pau	Sapienza	2 000 €
2016	Improving ultrasonic imaging of structures – grant obtained to fund the stay at Sapienza of prof. Francesco Lanza di Scalea, University of California San Diego as Visiting Professor	Sapienza, funds for visiting professors	5 000 €
2009	Dynamic characterization and structural monitoring of monuments, 24 months, PI	Ateneo Sapienza	3 750 €

Part VI - International research, teaching appointments and offices

Year	Title
2022	Lecturer of the summer school Discovering the exciting world of medical ultrasound, National and Kapodistrian University of Athens, Greece, 16-20 May 2022, lecture to be delivered: Ultrasonic wave propagation in solids (2 hours)
2021	Reviewer of a Research Project for the European Science Foundation (21-FWO-FRP-XXXX)
2021	Member of the international evaluation commission for the awarding of the Philosophy Doctorate Degree, Universidad Politécnica de Madrid, December 21st 2021, candidate Guillermo Azuara
2020	Visiting Professor, University of California San Diego, San Diego, USA, Department of Structural Engineering, Structural Analysis SE130B (50 hours) appointment not completed because of the COVID-19 pandemic
2019	Reviewer of a Research Project for the European Science Foundation (21-FWO-FRP-XXXX)
2017	Visiting Professor, Democritus University of Thrace, School of Engineering, Xanthi, Grecia 31/01/2017-02/02/2017, 9 hours, Guided wave propagation in solid media: applications to stress monitoring, defect characterization and imaging.
2013	Visiting Scholar, University of California, San Diego (UCSD), Department of Structural Engineering
2010/11	Vising Scholar, University of California San Diego, (UCSD) Department of Structural Engineering

Part VII - Editorial Activity and organization of conferences

Editorial activity

September 2019 - to date: Associate Editor of Journal of Vibration and Control, Sage publications

July 2020 – to date: Member of the Editorial Board of Shock and Vibration

Handling editor of the manuscripts submitted to NODYCON 2021 (Springer publication).

Reviewer of 9 manuscripts submitted to EWSHM 2022, European Workshop on Structural Health Monitoring, 6-9 July 2022 Palermo, Italy

Reviewer of the abstracts submitted to NODYCON 2023

Reviewer for the following journals: Journal of Intelligent Materials Systems and Structures; Journal of Sound and Vibration; Journal of Applied Physics; Meccanica; Journal of Vibration and Control; Research in Nondestructive Evaluation; Open Construction and Building Technology Journal; Shock and Vibration; Journal of Computational Methods in Sciences and Engineering; Acta Mechanica; Thin Walled Structures; Mechanical Systems and Signal Processing; Part C: Journal of Mechanical Engineering Science; Procedia Engineering; Applied Sciences; ZAMM; Journal of the Acoustical Society of America; Multidiscipline Modeling in Materials and Structures; Computer-Aided Civil and Infrastructure Engineering; Sensors; Advances in Mechanical Engineering; IEEE Transactions on Ultrasonics, Ferroelectrics and Frequency Control; Earthquake Engineering and Engineering Vibration; NODYCON 2019 e 2021; Structural Health Monitoring; Journal of Theoretical and Computational Acoustics; Journal of Structural Integrity and

Maintenance; Frontiers; Wave Motion; Ultrasonics; ASME Journal of Nondestructive Evaluation, Diagnostics and Prognostics of Engineering Systems; Smart Structures and Systems; European Journal of Mechanics A/Solids; Mechanics Research Communications; Measurement; Mechanics of Advanced Materials and Structures; Waves in Random and Complex Media; Archive of Applied Mechanics; ASCE Journal of Structural Engineering; Aerospace; Nonlinear Dynamics.

Organization of conferences

Organizer of the Minisymposium “Guided waves in structures: Applications to Structural Health Monitoring and Materials Characterization” with Wieslaw Ostachowicz, SMART 2023, 10th ECCOMAS Thematic Conference on Smart Structures and Materials, July 3-6 2023, Patras Greece
Member of the organizing committee NODYCON 2023, Third International Nonlinear Dynamics Conference, June 18-22 2023, Rome
Organizer of the workshop “Ultrasound-driven clinical care: advanced and emerging ultrasound technologies to address challenging clinical needs”, A CIVIS Networking Activity through Organising Workshops, School of Civil and Industrial Engineering, August 1-2 2022, Rome
Coorganizer of the session Guided Waves in Structures for SHM with Wieslaw Ostachowicz, 10th EWSHM European Workshop on Structural Health Monitoring, Palermo, Italia, 2022
Member of the organizing committee of the III International Conference on Material Chemistry and Composite Materials, Guangzhou, China, December 10-12 2021
Member of the organizing committee NODYCON 2021, Second International Nonlinear Dynamics Conference, February 16-19, 2021
Member of the organizing committee of the 14 th international Workshop on Advanced Smart Materials and Smart Structures Technology, ANCRiSST, Roma, Italia, 19.07.19-20.07.19
Member of the organizing committee AIMETA 2019, Roma, Italia, 15.09.19-19.09.19
Member of the organizing committee X International Conference on Structural Dynamics EURODDYN 2017, Roma, Italia, 11.09.17-13.09.17

Part VIII – SEMINARS, KEYNOTE, INVITED TALKS

<i>Wave propagation in microstructured porous materials</i> , Keynote lecture, III International Conference on Material Chemistry and Composite Materials, Guangzhou, China, December 10-12 2021
<i>Wave propagation in microstructured materials. Multiscale modelling approach to the modelling of a porous medium</i> , invited talk, September 22 2021, Nanoinnovation 2021, School of Engineering, Sapienza University of Rome
<i>Modelling the propagation of waves in composite materials by equivalent multifield continua</i> , seminar within the Course in Multiscale Modelling in Composites, September 22 2021, PhD in Structural Engineering, Sapienza University of Rome
<i>Ultrasonic guided wave imaging of plates containing defects and inclusions</i> , invited talk, IEEE IUS 2020, Institute of Electrical and Electronics Engineers, International Ultrasonics Symposium, 11 SEPTEMBER 2020 Las Vegas, USA
<i>Dynamic characterization of the Trajan Column, the Colosseum and the Basilica of Maxentius</i> , July 26 th 2019, lecture delivered at APSS 2019, the Asia-Pacific-Euro Summer School on Smart Structures Technology, Rome
<i>Dynamic characterization and health monitoring of historical buildings</i> , June 22 nd 2017, seminar delivered to PhD students of the Department of Structural and Geotechnical Engineering, Sapienza University of Rome, Rome, Italy
<i>Nonlinearities in the modelling of guided waves in prestressed plates</i> , keynote lecture, 5th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and

Earthquake Engineering, Crete Island, Greece, May 25 th 2015
<i>Dynamic characterization and health monitoring of historical buildings</i> , seminar, February 2 nd 2011, Department of Structural Engineering, University of California, San Diego, USA
<i>Material symmetries and scale effects in block masonry and equivalent micropolar continua</i> , seminar, February 25 th 2011, Department of Mechanical and Aerospace Engineering, University of California, San Diego, USA

Part IX - PUBLICATIONS

International Journals

1. M. Wang, **A. Pau**, G. Zhang, T. Kundy, Monitoring prestress in plates by sideband peak count-index (SPC-I) and nonlinear higher harmonics techniques, under review
2. **A. Pau**, U. Eroglu, Identification of damage in beams using the Minimum Variance Distortionless Response beamformer, 2022, submitted
3. **A. Pau**, B. Carboni, W. Lacarbonara, G. Formica, Modelling the propagation of bending waves in hysteretic beams, *International Journal for Multiscale Computational Engineering*, vol. 20 (6), pp. 43-54, 2022 DOI: 10.1615/IntJMultCompEng.2022042439
4. **A. Pau**, F. Vestroni, Identification of in-motion train loads based on measurements of rail strains, *Structural Control and Health Monitoring*, vol. 28 (11), 2021 e2818 doi.org/10.1002/stc.2818
5. **A. Pau**, P. Trovalusci, A multifield continuum model for the description of the response of microporous/microcracked composite materials, *Mechanics of Materials*, vol. 160, September 2021, 103965 DOI: doi.org/10.1016/j.mechmat.2021.103965
6. S. Sternini, **A. Pau**, F. Lanza di Scalea, Minimum Variance Imaging in Plates Using Guided Wave Mode Beamforming, *IEEE Transactions on Ultrasonics, Ferroelectrics and Frequency Control*, vol.66 (12), pp.1906-1919, 2019, DOI:10.1109/TUFFC.2019.2935139
7. **A. Pau**, F. Vestroni, The role of material and geometric nonlinearities in acoustoelasticity, vol. 86, pp. 79-90, 2019, *Wave Motion*, DOI:10.1016/j.wavemoti.2018.12.005
8. J. Ciambella, **A. Pau**, F. Vestroni, Modal curvature-based damage localization in weakly damaged continuous beams, vol. 121, pp. 171-182, 2019, *Mechanical Systems and Signal Processing*, DOI:10.1016/j.ymsp.2018.11.012
9. **A. Pau**, Derivation of wave mode orthogonality from reciprocity in direct notation, vol. 1(2), 024501-024501-3, 2018, ASME Journal of Nondestructive Evaluation, Diagnostics and Prognostics of Engineering Systems DOI: 10.1115/1.4039477
10. **A. Pau**, D. Achillopoulou, Interaction of shear and Rayleigh-Lamb waves with notches and voids in plate waveguides, vol. 10(7), pp. 1-14, 2017, *Materials*, Special Issue Structural Health Monitoring for Aerospace Applications DOI:10.3390/ma10070841
11. **A. Pau**, D. Achillopoulou, F. Vestroni, Scattering of guided shear waves in plates with discontinuities, vol. 84, pp. 67-75, 2016, *NDT&E International*, DOI: 10.1016/j.ndteint.2016.08.004
12. D. Capecchi, J. Ciambella, **A. Pau**, F. Vestroni, Damage identification in a parabolic arch by means of modal frequencies, shapes and curvatures, *Meccanica, Special issue on Nonlinear Dynamics, Identification and Monitoring of Structures*, vol. 51 (11), pp. 2847–2859, 2016, DOI: 10.1007/s11012-016-0510-3
13. **A. Pau** & F. Lanza di Scalea, Nonlinear guided wave propagation in prestressed plates, vol. 137 (3), pp. 1529-1540, 2015, *Journal of the Acoustical Society of America* DOI: 10.1121/1.4908237

14. **A. Pau**, D. Capecchi & F. Vestroni, Reciprocity principle for scattered fields from discontinuities in waveguides, vol. 55, pp. 85-91, 2015, *Ultrasonics*, DOI: 10.1016/j.ultras.2014.08.001
15. P. Trovalusci & **A. Pau**, Derivation of microstructured continua from lattice systems via principle of virtual works. The case of masonry-like materials as micropolar, second gradient and classical continua, vol. 225 (1), pp. 157-177, 2014, *Acta Mechanica*, DOI 10.1007/s00707-013-0936-9
16. **A. Pau** & F. Vestroni, Vibration assessment and structural monitoring of the Basilica of Maxentius in Rome, vol. 41, pp. 454-466, 2013, *Mechanical Systems and Signal Processing* DOI:10.1016/j.ymsp.2013.05.009
17. A. Greco & **A. Pau**, Identification of material parameters in Timoshenko frames, vol. 110–111, pp. 180–182, 2012, *Computers & Structures* DOI: 10.1016/j.compstruc.2012.06.004
18. **A. Pau** & P. Trovalusci, Block masonry as equivalent continua: the role of relative rotations, vol. 223(7), pp. 1455-1471, 2012, *Acta Mechanica* DOI: 10.1007/s00707-012-0662-8
19. A. Greco & **A. Pau**, Damage identification in Euler frames, vol. 92-93, pp. 328-336, 2012, *Computers & Structures* DOI: 10.1016/j.compstruc.2011.10.007
20. **A. Pau** & F. Vestroni, Wave propagation in one-dimensional axial waveguides for damage characterization, *Journal of Intelligent Material Systems and Structures*, vol. 22(16), pp. 1869–1877, 2011, DOI: 10.1177/1045389X11414959
21. A. Greco, **A. Pau**, Detection of a concentrated damage in a parabolic arch by measured static displacements, *Structural Engineering and Mechanics*, vol. 39(6), pp. 751-765, 2011
22. **A. Pau**, A. Greco, F. Vestroni, Numerical and experimental detection of concentrated damage in a parabolic arch by measured frequency variations, *Journal of Vibration and Control*, vol. 17(4), pp. 605-614, 2011 DOI: 10.1177/1077546310362861
23. **A. Pau** & F. Vestroni, Vibration analysis and dynamic characterization of the Colosseum, *Structural Control and Health Monitoring*, vol. 15, pp. 1105-1121, 2008 DOI: 10.1002/stc.253
24. **A. Pau** & F. Vestroni, Modal analysis of a beam with radiation damping: numerical and experimental results, *Journal of Vibration and Control*, vol. 13(8), pp. 1109–1125, 2007 DOI: 10.1177/1077546307074573

Edited Volumes

25. F. Vestroni & **A. Pau**, Dynamic Characterization and Damage Identification, in G.M.L. Gladwell and A. Morassi eds., *Dynamical Inverse Problems*, CISM courses and lectures vol. 529, 151-178 Springer 2011 ISBN: 978-3-7091-0695-2
26. **A. Pau** & F. Vestroni. Dynamic characterization of ancient masonry structures, in *Advances in Vibration Analysis Research*, 213-230, Intech 2011, ISBN: 978-953-307-391-0
27. F. Vestroni & **A. Pau**, Elements of experimental modal analysis, in A. Morassi, F. Vestroni. *Dynamic Methods for Damage Detection in Structures*, CISM courses and lectures vol. 499, 1-12, Springer 2008 ISBN: 978-3-211-78776-2 DOI: 10.1007/978-3-211-78777-9_1

*presenting author

International Conference Proceedings

28. M. Wang, **A. Pau***, M. Lepidi, Design of Mechanical Metamaterials based on Biphasic Periodic Microstructure, *Proceedings of the 10th Thematic conference on Smart Structures and Materials*, SMART 2023, 3-5 July, Patras, Greece
29. S. Naghinajad*, **A. Pau**, 3D ultrasonic tomography for image reconstruction: an application to the plasma dynamics of PROTOSPHERA, *VII ECCOMAS Young Investigators Conference YIC2023*, 19-21 June 2023, Porto, Portugal

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30. M. Wang, **A. Pau***, Stress monitoring of plates by means of nonlinear guided waves, *10th European Workshop on Structural Health Monitoring EWSHM 2022*, 4-7 July 2022, Palermo, Italy
31. F. Vestroni*, **A. Pau**, J. Ciambella, The role of curvatures in damage identification, *11th International Conference on Bridge Maintenance, Safety and Management IABMAS 2022*, 11-15 July 2022, Barcelona, Spain
32. **A. Pau***, F. Vestroni, Train-weight-in-motion identification measuring time-histories of rail strains, *Proceedings of the 11th International Conference on Structural Dynamics, EURODYN 2020*, 23-26 November 2020, Athens, Greece
33. F. Vestroni*, A. De Sortis, **A. Pau**, Measurement of the Colosseum response to environmental actions, *Proceedings of the 11th International Conference on Structural Dynamics, EURODYN 2020*, 23-26 November 2020, Athens, Greece
34. **A. Pau***, S. Sternini, F. Lanza di Scalea, Ultrasonic guided wave imaging of plates containing defects and inclusions, *IEEE IUS 2020, Institute of Electrical and Electronics Engineers, International Ultrasonics Symposium*, 6 - 11 September 2020 Las Vegas, USA
35. **A. Pau**, F. Vestroni*, E. Duca, M. Platini, Identification of freight train loads using time-histories of rail strains, *12th World Congress on Railway Research*, 28 October – 1 November 2019, Tokyo, Japan
36. A. Pau, F. Vestroni, Rail-strain-based identification of freight train loads, *The 14th international Workshop on Advanced Smart Materials and Smart Structures Technology, ANCRiSST*, Rome 19-20 July, 2019
37. J. Ciambella, F. Vestroni*, **A. Pau**, The use of different modal quantities for damage identification, *IX ECCOMAS Thematic Conference on Smart Structures and Materials, SMART 2019*, Paris 8-11 July, 2019
38. J. Ciambella*, **A. Pau**, F. Vestroni, Effective filtering of modal curvatures for damage identification in beams, *Proceedings of the 10th International Conference on Structural Dynamics, EURODYN 2017*, September 11-13, Rome, Italy
39. D. Achillopoulou, **A. Pau***, Characterization of Defects in Plates using Shear and Lamb Waves, *Proceedings of the 10th International Conference on Structural Dynamics, EURODYN 2017*, September 11-13, Rome, Italy
40. F. Lanza di Scalea*, S. Sternini, A. Quattrocchi, R. Montanini, **A. Pau**, Match Coefficient Approach for Damage Imaging in Structural Components by Ultrasonic Synthetic Aperture Focus, *Proceedings of the 10th International Conference on Structural Dynamics, EURODYN 2017*, September 11-13, Rome, Italy
41. **A. Pau***, F. Vestroni, E. Duca, M. Del Muto, M. Platini, Thermal buckling monitoring in continuous welded rails by means of temperature and strain measurements, *11th World Congress on Railway Research*, Milan, Italy, 29 May - 2 June 2016
42. D. Achillopoulou*, **A. Pau**, F. Vestroni, Damage characterization in waveguides with ultrasonic shear waves, *Proceedings of Compdyn 2015, 5th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering*, Crete Island, Greece, 27-27 May 2015, pp. 4682-4689, ISBN: 978-960-99994-7-2
43. **A. Pau***, F. Lanza di Scalea, Non-destructive evaluation of prestress in plates by nonlinear guided waves *Proceedings of the 9th International Conference on Structural Dynamics, EURODYN 2014*, Porto, Portugal, 30 June - 2 July 2014 ISSN: 2311-9020; ISBN: 978-972-752-165-4
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