Curriculum Vitae et Studiorum

of **STEFANO LENCI**

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1992 ..... Degree in Civil and Building Engineering, University of Ancona, summa cum laude.
1993-1997... Ph.D. in "Structural Engineering", University of Florence.
1998-2000... Post-doc, University Pierre et Marie Curie (Paris 6).
2000 ..... Habilitation to "Maître de conférences" (associate professor) in France.
2000-2001... Assistant Professor, University of Roma "La Sapienza."
2001-2005... Associate Professor, University of Ancona.
2005-..... Full Professor, Polytechnic University of Marche, Ancona.
2006-2011... Head of the Ph.D. program in "Structural and Building Engineering," Polytechnic University of Marche, Ancona.
2007-..... Member of the Editorial Board of Int. J. Non-linear Mechanics.
2007-2013... Member of the "Technical Committee on Control and Dynamics of Structures and Systems," American Society of Mechanical Engineering (ASME).
2008-..... Full Member of the "Academy of Science of the Marche Region."
2010-2018... Associate Editor of Mathematical Problems in Engineering.
2011-2017... Associate Editor of ASME J. Computational and Nonlinear Dynamics.
2011-2015... Head of the Department of Civil and Building Engineering, and Architecture, Polytechnic University of Marche, Ancona.
2011-2012... Member of the Academic Senat of the Polytechnic University of Marche, Ancona
2011-..... Member of the "Technical Committee on Vibrations" of the International Federation for the Promotion of Mechanism and Machine Science (IFToMM).
2012-2018... Associate Editor of Meccanica.
2012-..... Member of the "Technical Committee on Multibody Systems and Nonlinear Dynamics," American Society of Mechanical Engineering (ASME); 2017-19 Secretary; 2019-21 Vice-Chair; 2021-23 Chair of the Committee; 2023-25 Past President.
2012-2018... Member of the "Technical Committee on Vibration and Sound," American Society of Mechanical Engineering (ASME).
2012-2017... Associate Editor of J. Applied Nonlinear Dynamics.
2013-2014... Head of the PhD program in "Civil, Environmental, Building Engineering, and Architecture," Polytechnic University of Marche, Ancona.
2013-..... Associate Editor of Nonlinear Theory and Its Applications (NOLTA).
2013-2018... Associate Editor of Int. J. Dynamics and Control.
2014-2019... Delegate of the Rector for the Buildings of the UNIVPM.
2015 ..... First recipient of the ASME Journal of Computational and Nonlinear Dynamics Distinguished Service as an Associate Editor Award.
2015-2018... Head of the Ph.D. program in "Civil, Environmental, Building Engineering, and Architecture," Polytechnic University of Marche, Ancona.
2016-..... Associate Editor of Nonlinear Dynamics.
2017-..... Associate Editor of ASME J. Vibration and Acoustics.
2018-..... Member of the European Nonlinear Oscillation Conference (ENOC) Committee. From 1.1.2024 Chair of the Committee.
2018-..... Editorial Board of Int. J. of Mechanical Sciences.
2018-..... Associate Editor of Eur. J. Mechanics A/Solids.
2018-2021... President of the Italian Association of Theoretical and Applied Mechanics (AIMETA).
2018-2024... Member of the Board of Directors of the Polytechnic University of Marche.
2019-..... Fellow of the American Society of Mechanical Engineers.

2019-..... Member of the Scientific Committee of the "Associazione Ingegneria Sismica Italiana (ISI) – Italian Association of Seismic Engineering".
2020-..... Editorial Board of Sensors.
2020-..... Editorial Board of ZAMM.
2022-..... Member of the Congress Committee of the IUTAM.
2022-..... Honors and Awards Chair for the ASME Design Engineering Division, ASME.
2022-..... Member of the Executive Committee of the Design Engineering Division (DED), American Society of Mechanical Engineering (ASME).
2023-..... Editorial Board, *Academia Engineering*.
2023-..... Editorial Board, *International Journal of Mechanical System Dynamics (IJMSD)*.

He made research and taught at the Universities of Ancona (now Polytechnic University of Marche), Camerino, Pisa, Rome "La Sapienza" and Paris 6, where he stayed for two years and half. He was the responsible of various national and international (with UK, Poland, France, Spain, Brazil, Serbia, Germany, China) scientific projects. He was visiting at the Universities of Paris 6, Wien, Montpellier II, London, Aberdeen, Lublin, Extremadura, Sao Paulo, Rio de Janeiro, Hiroshima, Jeddah, Harbin, Nanjing, Lodz, Novi Sad, Hunan University, Sichuan University of Science and Engineering. He was invited to deliver 40 seminars in different Universities. He supervised more than 200 undergraduated students and 25 PhD students (4 ongoing). He authored about 400 scientific publications, among which 12 books (2 international) and 204 papers on international, peer reviewed, scientific journals with high impact factor. He has been Guest Editor of Special Issues of "Phil. Trans. Royal Soc. London," "Nonlinear Dynamics," "Meccanica," "Int. J. Non-Linear Mech", "Math. Prob. Eng.", "Nonlinear Theory and Its Applications (NOLTA)", "Actuators", "Chaos", "Theoretical and Applied Mechanics Letters". He is member of various scientific organization, national and international, and he is reviewer for 187 international scientific journals, for the American Mathematical Society, and for research projects of various scientific Institutions (Austria, Belgium, Canada, Israel, Japan, Kazakhstan, Poland, Romania, UK, The Netherlands, Horizon 2020). He delivered invited lectures in various Conferences, and chair several sessions in international Congresses. He was the Chairman of the XIX Italian Congress of Mechanics, held in Ancona, 14-17 september 2009 and of the Euromech 541, held in Senigallia, 3-6 june 2013.

His research is focused on the investigation of several aspects of the nonlinear dynamics of various mechanical systems and models. In particular, buckled beams, shallow arches, rolling ships, inverted pendulum between lateral walls, mathematical pendulum, rigid block, infinite beams on unilateral soil, frictional impact oscillator, bilayer beams, etc., have been considered. An original method for controlling the nonlinear dynamics and chaos has been developed and applied to various mechanical systems. The dynamical integrity of mechanical systems has been investigated, too. Other specific research issues include laying of marine pipelines in deep and ultra-deep waters (the J-lay problem), the dynamic of windscreen wiper, various aspects of the mechanical behaviour of interfaces, and mechanical models for detecting elastic and damaged behaviour of composites.
Recently, he investigated the mechanical behaviour of dry-earth seen as a structural material, the nonlinear vibrations of non-uniform beams, and the effects of the boundary conditions of the nonlinear oscillations of beams.
An important research area in which provides contributions is the seismic vulnerability of building (civil and industrial, new and existing, in reinforced concrete and masonry) and of historical cities.

A. PAST AND PRESENT POSITIONS

1998-00: Researcher (Assistant Professor) of "Structural Mechanics" at the Faculty of Engineering of the University of Ancona.

2000: "Qualification aux fonctions de Maître de conférences – section 60: Mécanique, Génie Mécanique, Génie Civil – qualification n. 00260094903" (in France).

2000-01: Researcher (Assistant Professor) in "Structural Mechanics" at the First Faculty of Architecture of the University of Rome "La Sapienza".

2001-05: Associate Professor in "Structural Mechanics" at the Faculty of Engineering of the University of Ancona.

2005-: Full Professor in "Structural Mechanics" at the Faculty of Engineering of the Polytechnic University of Marche, Ancona.

2008-: Full Member of the Academy of Science, Letters and Arts of the Marche Region.

B. GRANTS AND RESEARCHES FUNDED (MAIN PROJECTS ONLY)

individual post-doc grant ERBFMBICT972458, supported by the European Union under the program "Training and Mobility of Researchers – T.M.R.", Marie Curie Research Training Grants.

"Application of nonlinear dynamics and control to energy extraction from sea waves", funded by the British Council, the Conferenza dei Rettori delle Università Italiane (CRUI) and by the Ministero dell'Istruzione, dell'Università e della Ricerca (MIUR). Foreign partner: University of Aberdeen.

Head of the Ancona unit of the international research project "Modern Composite Materials Applied in Aerospace, Civil and Mechanical Engineering: Theoretical Modelling and Experimental Verification", which has been funded by the European Community within the 6° framework program, Marie Curie Fellowships for the Transfer of Knowledge (ToK).

"Energy extraction from sea waves by exploiting nonlinear dynamics phenomena", funded by the Royal Society of London, bilateral international program. Foreign partner: University of Aberdeen.

"Dynamics and control of engineering systems affected by friction forces", funded by the Royal Society of London, bilateral international program. Foreign partner: Imperial College, London.

"Control (elimination and activation) of chaos in multidimensional systems", funded by the Italian and Spain Ministry of University under the "Azioni Integrate Italia Spagna" international program. Foreign partner: University of Extremadura.

Head of the Task 1.6 of the European research project "Centre of Excellence for Modern Composites Applied in Aerospace and Surface Transport Infrastructure", FP7 - 245479 CEMCAST.

Miur Coperlink project with the University of Sao Paulo (Brasile), Prot. CII118U44G.

responsable of the Ancona research unit of the Italian National Research Project (PRIN) "Dinamics, stability and control of flexible structures."

SUNBEAM project, for scientific exchanges with the University of Novi Sad, Serbia.

"Overseas Famous Teacher" project, funded by the Hunan Provincial Education Authority, Hunan University of Science and Technology, Xiangtan, China.

"Dynamics and control of nonlinear complex systems within noise environments", finanziato dalla National Science Foundation of China (NSFC), PI: Yong Xu, international co-PI: Stefano Lenci, Jürgen Kurths, Ralf Metzler.

C. COMMUNICATIONS AT CONGRESSES, CONFERENCES, ETC. (FROM 2000)

1. Dinamica e controllo ottimo di oscillatori non lineari: sistemi ad impatto e sistemi con escape, di S. Lenci e G. Rega. Convegno "FENDIS - Fenomeni della Dinamica Strutturale metodi, osservazioni, modelli," Roma, 10-11 July 2001.
2. A Model for the Analysis of Elastic and Damage Longitudinal Shear Behaviour of Highly Concentrated Long Fiber Composites, di S. Lenci. "Eight International Conference on Composite Engineerings ICCE/8," Tenerife, Spagna, 5–11 August 2001.
3. Optimal control of homoclinic bifurcation in a periodically driven Helmholtz oscillator, di S. Lenci e G. Rega. "2001 ASME Design Engineering Technical Conferences," Pittsburgh, Pennsylvania, U.S.A., 9–12 September 2001.
4. Sul controllo ottimo della dinamica forzata non regolare di oscillatori meccanici e strutturali forzati, di S. Lenci e G. Rega. "AIMETA '01 - XV Congresso Nazionale dell'Associazione Italiana di Meccanica Teorica ed Applicata," Taormina, 26-29 September 2001.
5. A Microstructural Model for Highly Concentrated Long Fiber Composites, di S. Lenci, "SIMAI 2002 – VI Congresso Nazionale della Società Italiana di Matematica Applicata e Industriale," Chia, Domus de Maria (Ca), 27–31 May 2002.
6. Numerical Control of Homoclinic Bifurcations in a Duffing Oscillator, di S. Lenci e G. Rega. "GIMC 2002 – Third Joint Conf. of Italian Group of Comp. Mech. and Ibero-Latin American Association of Comp. Meth. in Engineering," Giulianova (Te), 24-26 June 2002.
7. Numerical Control of Homoclinic Bifurcations in Mechanical Systems, di S. Lenci e G. Rega. "WCCM V Fifth World Congress on Computational Mechanics," Vienna, Austria, 7-12 July 2002.
8. Optimal Control of the Homoclinic Bifurcation Embedded in the Infinito-Dimensional Dynamics of Buckled Beams and Shallow Arches, di S. Lenci e G. Rega. "4th EUROMECH Nonlinear Oscillations Conference (4ENOC)," Mosca, Russia, 19-23 August 2002.
9. Heteroclinic Bifurcations and Optimal Control in the Nonlinear Dynamics of Rigid Blocks, di S. Lenci e G. Rega. "Gesellschaft für Angewandte Mathematik und Mechanik (GAMM 2003)," Abano Terme (Pd), 24-28 March 2003.
10. Bifurcation and Chaos in Mechanical Applications: A Dynamical System Approach to Their Control, di S. Lenci e G. Rega. "IUTAM Symposium on Chaotic Dynamics and Control of Systems and Processes in Mechanics," Roma, 8-13 June 2003.
11. Bifurcations, Chaos and Control in Mechanical Systems, di S. Lenci e G. Rega. "Bifurcations: The Use and Control of Chaos". Southampton, UK, 28-30 July 2003.
12. Higher-order Melnikov Analysis of Homo/eteroclinic Bifurcations in Mechanical Oscillators, di S. Lenci e G. Rega. "AIMETA '03 - XV Congresso Nazionale dell'Associazione Italiana di Meccanica Teorica ed Applicata," Ferrara, 9-12 September 2003.
13. Overturning Thresholds of a Rocking Block Subjected to Harmonic Excitation: Computer Simulations and Analytical Treatment, di S. Lenci e G. Rega. "2003 ASME International Mechanical Engineering Congress & Exposition (IMECE'03)," Washington, D.C., U.S.A., 16-21 November 2003.
14. Aspetti numerici nel controllo e anticontrollo ottimo del blocco rigido, di S. Lenci e G. Rega.

"15° Convegno Nazionale di Meccanica Computazionale (GIMC 2004)," Genova, 21-23 June 2004.

15. Numerical Aspects in Optimal Control and Anti-control of Rigid Block Dynamics, di S. Lenci e G. Rega. "WCCM VI Sixth World Congress on Computational Mechanics," Pechino, Cina, 5-10 September 2004.
16. A microscale approach to the elastic and damage longitudinal shear behaviour of highly concentrated long fiber composites, di S. Lenci. "IUTAM Symposium on Multiscale modelling of damage and fracture processes in composite materials," Kazimierz Dolny, Polonia, 23-27 May 2005.
17. Computational nonlinear dynamics and optimal control/anti-control of a rocking block, di S. Lenci e G. Rega. "ECCOMAS Thematic Conference Multibody Dynamics 2005," Madrid, Spagna, 21-24 June 2005.
18. Some aspects of the non-smooth dynamics of an impacting inverted pendulum, di S. Lenci, L. Demeio, M. Petrini. "Fifth EUROMECH Nonlinear Dynamics Conference (ENOC-2005)," Eindhoven, Olanda, 7-12 August 2005.
19. Control of homoclinic bifurcation of a nonlinear thermoelastic electrodynamically actuated microbeam, di S. Lenci e G. Rega. "Fifth EUROMECH Nonlinear Dynamics Conference (ENOC-2005)," Eindhoven, Olanda, 7-12 August 2005.
20. Optimal control of the homoclinic bifurcation in buckled beams: infinite-dimensional vs reduced order modeling, di S. Lenci e G. Rega. "Recent Advances in Nonlinear Mechanics (RANM2005)," Aberdeen, Scotland, U.K., 30 August-1 September 2005 (invited lecture).
21. Dynamical Integrity of Nonlinear Mechanical Oscillators, di S. Lenci e G. Rega. "ECF16 - 16th European Conference of Fracture," Alexandroupolis, Grecia, 3-7 July 2006 (invited lecture).
22. Nonlinear Normal Modes of Homoclinic Orbits and Their Use For Dimension Reduction in Chaos Control Problems, di S. Lenci e G. Rega. IUTAM Symposium on "Dynamics and Control of Nonlinear Systems with Uncertainty," Nanjing, Cina, 18-22 September 2006 (invited lecture).
23. Un modello per il comportamento meccanico di compositi a fibra lunga ad alta densità, di S. Lenci. Riunione Gruppo Materiali dell'AIMETA - GMA07, Trento, 23-24 February 2007.
24. Nonlinear phenomena in the single-mode dynamics of a cable-supported beam, di S. Lenci e L. Ruzziconi. "International Symposium on Recent Advances in Mechanics, Dynamical Systems and Probability Theory - MDP2007," Palermo, 3-6 June 2007.
25. Competing dynamic solutions in a parametrically excited pendulum: attractor robustness and basin integrity, di S. Lenci e G. Rega. "2007 ASME Design Engineering Technical Conferences & Computers and Information in Engineering Conference," Las Vegas, Nevada, U.S.A., 4-7 September 2007.
26. A discrete-time model for the pedestrians-induced lateral vibrations of footbridges, di S. Lenci e L. Marcheggiani. "Nonlinear Dynamics and Chaos: Advances and Perspectives." Aberdeen, Scozia, Gran Bretagna, 17-21 September 2007.
27. Sul comportamento meccanico della terra cruda, di S. Lenci e F. Clementi. Riunione Gruppo Materiali dell'AIMETA - GMA08, Genova, 29 February-1 March 2008.
28. A simple model for detecting the synchronization of pedestrians motion and lateral vibrations of footbridges, di S. Lenci e L. Marcheggiani. "Workshop on Dynamics and Control." Amman, Giordania, 24-29 March 2008.
29. Exploiting nonlinear dynamics properties for controlling and using chaos and escape phenomena, di S. Lenci. "Italian-Israeli Forum on Science and Technology." Tel Aviv, Israele, 28-30 April 2008 (invited lecture).
30. A numerical analysis of the nonlinear dynamics of a semi-infinite beam laid on an unilateral elastic support, di G. Lancioni e S. Lenci. Euromech Colloquium 498 "Nonlinear Dynamics

of Composites and Smart Structures." Kazimierz Dolny, Poland, 21-24 May 2008.

31. Computational Aspects in the Study of a Model for the Pedestrians-Induced Lateral Vibrations of Footbridges, di S. Lenci e L. Marcheggiani. "8th World Congress on Computational Mechanics - WCCM8" and "5th European Congress on Computational Methods in Applied Sciences and Engineering - ECCOMAS2008," Venezia, 30 June-4 July 2008.
32. Detecting stable-unstable nonlinear invariant manifold and homoclinic orbits in mechanical systems, di S. Lenci e G. Rega, "ASME International Mechanical Engineering Congress and Exposition (IMECE 2008)," Boston, MA, USA, 3-7 November 2008.
33. Analisi asintotica di travi multistrato, di S. Lenci e M. Serpilli. Riunione Gruppo Materiali dell'AIMETA - GMA09, Milano, 23-24 January 2009.
34. Nonlinear phenomena in the dynamics of a cable-supported beam, di L. Ruzziconi e S. Lenci. "AIMETA 2009 - XIX Congresso Nazionale dell'Associazione Italiana di Meccanica Teorica ed Applicata," Ancona, 14-17 September 2009.
35. Nonlinear invariant manifold and homoclinic orbits of a two-mode model of buckled beam via NNM techniques, di S. Lenci e G. Rega. "Euromech Colloquium 503 – Nonlinear normal modes, dimension reduction and localization in vibratine systems," Frascati (Roma), 27 September-1 October 2009.
36. Continuous- and discrete-time models for the pedestrians-footbridges synchronization, di S. Lenci e L. Marcheggiani. "11th Pan-American Congress of Applied Mechanics (PACAM XI)," Foz do Iguacu, Parana, Brazil, 4-8 January 2010 (invited lecture).
37. Vetro stratificato: prove e modelli, di S. Lenci e L. Consolini. Riunione Gruppo Materiali dell'AIMETA - GMA10, Palermo, 25-26 February 2010.
38. Practical stability of rotating solutions in a parametrically excited experimental pendulum via dynamical integrity concepts, di S. Lenci, W. Luzi, E. Venturi e G. Rega. IUTAM Symposium on "Nonlinear Dynamics for Advanced Technologies and Engineering Design," Aberdeen, Scotland, UK, 27-30 July 2010 (invited lecture).
39. Computational tools for evaluating the global safety and the dynamical integrity of mechanical and structural systems, di S. Lenci e G. Rega. "18° Convegno Italiano di Meccanica Computazionale (GIMC 2010)," Siracusa, 22-24 September 2010.
40. On the performances of high-order absorbing boundary conditions for propagating and standing waves, di Lancioni G. e Lenci S., "ASME International Mechanical Engineering Congress and Exposition (IMECE 2010)," Vancouver, British Columbia, Canada, 12-18 November 2010.
41. Ottimizzazione strutturale: percorsi per un metodo progettuale tra forma e struttura, di S. Lenci e L. Consolini. Workshop "Forma e struttura," Ancona, 23 February 2011.
42. Global safety and the dynamical integrity of mechanical and structural systems, di S. Lenci e G. Rega. Int. Workshop on "Non Autonomous Differential Equations" in honor of the 65th birthday of Ken Palmer, Ancona, 27 June 2011.
43. Nonlinear resonances of an infinitely long cable on a tensionless foundation, di L. Demeio e S. Lenci. "8th International Conference of Structural Dynamics (Eurodyn2011)," Leuven, Belgium, 4-6 July 2011.
44. Load bearing capacity of structural systems in a global safety perspective, di S. Lenci e G. Rega. "7th European Nonlinear Dynamics Conference (ENOC 2011)," Rome, 24-29 July 2011.
45. Resonances in an infinitely long cable on a tensionless non-smooth foundation: numerical analysis," di L. Demeio, G. Lancioni e S. Lenci. "ASME International Design Engineering Technical Congress & Computers and Information in Engineering Conference (IDETC/CIE 2011)," Washington, D.C., USA, 29-31 August 2011.
46. Practical stability of systems in a dynamical integrity perspective, di S. Lenci e G. Rega.

"ASME International Design Engineering Technical Congress & Computers and Information in Engineering Conference (IDETC/CIE 2011)," Washington, D.C., USA, 29-31 August 2011.

47. Non-smooth systems in civil engineering: an application to an historical church, di S. Lenci, Q. Piattoni, G. Lancioni e E. Quagliarini. SICC 7th International Tutorial Workshop "Nonlinear Dynamics of Piecewise-Smooth Dynamical Systems," Urbino (PU), Italy, 21-23 September 2011.
48. Controlling Nonlinear Dynamics of Systems Liable to Unstable Interactive Buckling, di S. Lenci, D. Orlando, G. Rega, P.B. Goncalves. "IUTAM Symposium on 50 years of chaos: Applied and Theoretical," Kyoto, Japan, 28 November - 2 December 2011 (invited lecture).
49. Dynamics of a Micro Electrical Mechanical System Subject to Thermoelastic and Squeeze-Film Damping, by P. Belardinelli, M. Brocchini, L. Demeio and S. Lenci. "International Conference on Structural Nonlinear Dynamics and Diagnosis (CSNDD 2012)," Marrakech, Morocco, 30 April - 2 May 2012.
50. Mechanical Systems with Coincident or Nearly-Coincident Buckling Modes: Nonlinear Normal Modes and System Safety, by S. Lenci, D. Orlando, P.B. Gonçalves and G.Rega. "4th International Conference on Localization, Energy Transfer and Nonlinear Normal Modes in Mechanics and Physics (NNM2012)," Haifa, Israel, 1-5 July 2012 (keynote lecture).
51. The NSCD method to analyze the dynamics of ancient masonry churches under seismic loadings, by G. Lancioni, Q. Piattoni and S. Lenci, "4th IEEE International Conference on Nonlinear Science and Complexity," Budapest, Hungary, 6-11 August 2012.
52. A Simple Model for Pedestrian Induced Lateral Oscillations of Bridges, by S. Lenci, "4th IEEE International Conference on Nonlinear Science and Complexity," Budapest, Hungary, 6-11 August 2012.
53. The use of the strain gradient elasticity theory in the electrically actuated microbeam problem: an investigation on the static and dynamic response, by P. Belardinelli and S. Lenci. "ASME International Design Engineering Technical Congress & Computers and Information in Engineering Conference (IDETC/CIE 2013)," Portland, Oregon, USA, 4-7 August 2013.
54. The homotopy-analysis approach for the dynamical study of a microbeam modeled on the basis of the strain-gradient theory, by P. Belardinelli and S. Lenci. "ASME International Design Engineering Technical Congress & Computers and Information in Engineering Conference (IDETC/CIE 2013)," Portland, Oregon, USA, 4-7 August 2013.
55. A limit model for the linear dynamics of a two-layer beam, by S. Lenci and G. Rega, "ASME International Design Engineering Technical Congress & Computers and Information in Engineering Conference (IDETC/CIE 2013)," Portland, Oregon, USA, 4-7 August 2013.
56. Nonlinear vibration of a microbeam modeled by the strain-gradient elasticity theory with an electrical actuation approximated by the Padé-Chebyshev method, by P. Belardinelli and S. Lenci, International Conference "Nonlinear Dynamics in Engineering: Modelling, Analysis and Applications", Aberdeen, Scotland, UK, 21-23 August 2013.
57. Nonlinear static and dynamic analysis of an electrically-actuated microbeam modelled by means of the strain gradient elasticity theory, by P. Belardinelli and S. Lenci, Fifth International Conference on Structural Engineering, Mechanics and Computation (SEMC 2013), Cape Town, South Africa, 2-4 September 2013.
58. Nonlinear dynamics of an electrically actuated MEMS device: Experimental and theoretical investigation, by L. Ruzziconi, A.H. Ramini, M.I. Younis and S. Lenci, ASME International Mechanical Engineering Congress & Exposition (IMECE 2013), San Diego, California, USA, 15-21 November 2013.
59. Micro-Electro-Mechanical-Systems (MEMS): modeling, analysis and interpretation of experimental data via dynamical integrity, by S. Lenci, Recent Advances in Nonlinear Mechanics (RANM 2014), Harbin, China, 6-9 January 2014 (keynote lecture).

60. Jump and pull-in dynamics of an electrically actuated bistable MEMS device, by L. Ruzziconi, S. Lenci and M.I Younis, 2nd International Conference on Structural Nonlinear Dynamics and Diagnosis (CSNDD 2014), Agadir, Morocco, 19-20 May 2014 (keynote lecture).
61. An estimation of the thermoelastic damping in microbeam resonators by using a unified generalized model, by P. Belardinelli, S. Lenci and L. Demeio, II Workshop su "Dinamica, stabilità e controllo delle strutture flessibili," Cagliari, 13-14 June 2014.
62. A MEMS device electrically actuated: global dynamics and dynamical integrity, by L. Ruzziconi, S. Lenci, G. Cocchi, M.I. Younis, 9th International Conference of Structural Dynamics (Eurodyn2014), Porto, Portugal, 30 June-2 July 2014.
63. Free vibrations of a two-layer nonlinear composite beam with different boundary conditions, by F. Clementi, S. Lenci, G. Cocchi, 9th International Conference of Structural Dynamics (Eurodyn2014), Porto, Portugal, 30 June-2 July 2014.
64. A unified generalized thermoelastic model for an electrically-actuated microbeam, by P. Belardinelli, S. Lenci, L. Demeio, 8th European Nonlinear Dynamics Conference (ENOC 2014), Vienna, 6-11 July 2014.
65. Nonlinear vibrations of beams with spatially varying stiffness, mass and axial load, by S. Lenci, F. Clementi, L. Demeio, C.E.N. Mazzilli, "ASME International Design Engineering Technical Congress & Computers and Information in Engineering Conference (IDETC/CIE 2014)," Buffalo, New York, USA, 17-20 August 2014.
66. High-performance computing of basins of attraction for large-scale systems, by P. Belardinelli, S. Lenci, Euromech Colloquium n. 562 "Stability and Control of Nonlinear Vibrating Systems," Sperlonga, Italy, 24-28 May 2015.
67. Structural optimization: how to merge the engineer's mind with the architect's eyes, by S. Lenci and L. Consolini, "On the Tectonics in Architecture: between Aesthetics and Ethics," Rome, Italy, 11-13 June 2015.
68. Nonlinear free vibrations of planar elastic beams: A unified treatment of geometrical and mechanical effects, by S. Lenci and G. Rega, "IUTAM Symposium on Analytical Methods in Nonlinear Dynamics," Frankfurt, Germany, 6-9 July, 2015.
69. Nonlinear dynamic phenomena of an oscillating AFM tip, by L. Ruzziconi, M.I. Younis, S. Lenci, "ASME International Design Engineering Technical Congress & Computers and Information in Engineering Conference (IDETC/CIE 2015)," Boston, Massachusetts, USA, 2-5 August 2015.
70. Vibration-Based SHM of Ordinary Buildings: Detection and Quantification of Structural Damage, by A. Pierdicca, D. Maracci, F. Clementi, D. Isidori, C. Cristalli, S. Lenci, "ASME International Design Engineering Technical Congress & Computers and Information in Engineering Conference (IDETC/CIE 2015)," Boston, Massachusetts, USA, 2-5 August 2015.
71. Influence of shear deformability and axial/rotational inertia in the nonlinear free vibrations of beams with different boundary conditions, by S. Lenci, G. Rega, "International Conference on Engineering Vibration (ICoEV15)," Ljubljana, Slovenia, 7-10 September 2015.
72. A unified generalized thermoelastic model for the analysis of an electrically-actuated microbeam, by P. Belardinelli, S. Lenci, "AIMETA 2015 - XXII Congresso Nazionale dell'Associazione Italiana di Meccanica Teorica ed Applicata", Genova, 14-17 Settembre 2015.
73. Hardening vs softening behaviour in the nonlinear dynamics of a planar Timoshenko beam, by S. Lenci, G. Rega, "13th International Conference on Dynamical Systems, Theory and Applications (DSTA2015)", Lodz, Poland, 7-9 December 2015.
74. A dynamical integrity approach for the nonlinear dynamics of MEMS, by S. Lenci, "12th International Conference on Vibration Problems (ICOVP)," Guwahati, Assam, India, 14-15 December 2015 (keynote lecture).

75. Micro-Electro-Mechanical-Systems (MEMS): modeling, analysis and interpretation of experimental data via dynamical integrity, by S. Lenci, "International Conference on Nanoscience, Nanotechnology & Advanced Materials," Visakhapatnam, India, 16-17 December 2015 (plenary lecture).
76. Micro-Electro-Mechanical-Systems (MEMS): modeling, analysis and interpretation of experimental data via dynamical integrity, by S. Lenci, Workshop on MEMS, Novi Sad, 5 February 2016.
77. A numerical model based on the non-smooth contact dynamics method for assessing the seismic vulnerability of roman arches, by D. Gentilucci, G. Lancioni, S. Lenci, E. Quagliarini, GIMC-GMA 2016 Lucca, 27-29 June 2016.
78. Nonlinear phenomena in the dynamics of an AFM, by L. Ruzziconi, S. Lenci, M.I. Younis, 6th Int. Conf. on nonlinear vibrations, localization and energy transfer, Liege, Belgium, 4-8 July 2016.
79. Perturbation (or Asymptotic) Methods, by S. Lenci, 6th Int. Conf. on nonlinear vibrations, localization and energy transfer, Liege, Belgium, 4-8 July 2016 (Tutorial).
80. Nonlinear coupling between axial and transversal oscillations of shearable beams, by S. Lenci, F. Clementi, G. Rega, 24rd Int. Congr. Theor. Appl. Mech. (ICTAM2016), Montreal, Canada, 21-26 August 2016 (Invited lecture).
81. Finding optimal computational time in basins of attraction execution – Applications. by P. Belardinelli, S. Lenci, IUTAM Symposium on Nonlinear and Delayed Dynamics of Mechatronic Systems, Nanjing, China, 17-21 October 2016.
82. Anisometric dynamical integrity measures, by P. Belardinelli, S. Lenci, G. Rega, 9th European Nonlinear Dynamics Conference (ENOC 2017), Budapest, Hungary, 25-30 June 2017.
83. An Electrically Actuated Microbeam-Based MEMS Device: Experimental And Theoretical Investigation, by L. Ruzziconi, N. Jaber, L. Kosuru, M.L. Bellaredj, S. Lenci, M.I. Younis, "ASME International Design Engineering Technical Congress & Computers and Information in Engineering Conference (IDETC/CIE 2017)," Cleveland, Ohio, USA, 6-9 August 2017.
84. Nonlinear analysis of a planar beam by the finite element method, by S. Lenci, L. Kloda, J. Warminski, "ASME International Design Engineering Technical Congress & Computers and Information in Engineering Conference (IDETC/CIE 2017)," Cleveland, Ohio, USA, 6-9 August 2017.
85. Improved reliability of dynamical integrity measures by means of higher-dimensional basins of attraction, by S. Lenci, P. Belardinelli, G. Rega, "AIMETA 2017 - XXIII Congresso Nazionale dell'Associazione Italiana di Meccanica Teorica ed Applicata", Salerno, 4-7 September 2017.
86. Revealing nonlinear dynamical behavior of laminated glass, by S. Lenci, L. Consolini, F. Clementi, G. Cocchi, "10th International Conference of Structural Dynamics (Eurodyn2017)," Rome, Italy, 10-13 September 2017.
87. A new computational approach to improve the global analysis of dynamical systems, by S. Lenci, P. Belardinelli, "22nd International Conference on Computer Methods in Mechanics (CMM2017)," Lublin, 13-16 September 2017 (plenary lecture).
88. Damages due to earthquakes: a lesson for engineers and non insiders, by S. Lenci, "Living with earthquakes," Cambridge, UK, 24-25 October 2017 (invited lecture).
89. The moving boundary problem of a semi-infinite cable resting on an unilateral foundation, by S. Lenci, "IUTAM Symposium on Recent Advances in Moving Boundary Problems in Mechanics," Christchurch, New Zeland, 12-15 February 2018.
90. Nonlinear coupling between axial and transversal oscillations of planar beams, by S. Lenci, F. Clementi, G. Rega, "Workshop on Recent Advances in Mechanics (structural/solid), Dynamical Systems (deterministic/stochastic) and Probability Theory (mathematical/applied)

– WMDP 2018", in honour of Prof. Mario Di Paola's 70th birthday, 5-6 March 2018.

91. On the strange effects of boundary conditions in the nonlinear vibrations of beams, by S. Lenci, 4th International Conference on Structural Nonlinear Dynamics and Diagnosis (CSNDD 2018), Agadir, Morocco, 25-27 June 2018 (keynote lecture).
92. On the coupling between axial and transversal vibration in a rectilinear Euler-Bernoulli beam, by S. Lenci and F. Clementi, "10th European Solid Mechanics Conference (ESMC2018)," Bologna, Italy, 2-6 July 2018.
93. Stochastic switching and reduction of integrity in atomic force microscopy, by P. Belardinelli, S. Lenci, F. Alijani, "ASME International Design Engineering Technical Congress & Computers and Information in Engineering Conference (IDETC/CIE 2018)," Quebec City, Canada, 26-29 August 2018.
94. Dynamical instability of pressurized electrically-actuated circular micro-plates, by P. Belardinelli, B. Sajadi, S. Lenci, F.Alijani, Euromech Colloquium n. 603 "Dynamics of micro and nano electromechanical systems: multi-field modelling and analysis," Porto, Portugal, 5-7 September 2018.
95. Experimental and theoretical Investigation of a micro-beam based MEMS device with half electrode configuration, by L. Ruzziconi, N. Jaber, L. Kosuru, M.L. Bellaredj, S. Lenci, M.I. Younis, Euromech Colloquium n. 603 "Dynamics of micro and nano electromechanical systems: multi-field modelling and analysis," Porto, Portugal, 5-7 September 2018.
96. A nonlinear beam with a linear backbone curve, by S. Lenci, "First International Nonlinear Dynamics Conference (Nodycon 2019)," Rome, Italy, 18-20 February 2019.
97. Nonlinear oscillations of a beam with an inclined roller, by S. Lenci, F. Clementi, Fourth International Conference on "Recent Advances in Nonlinear Mechanics (RANM2019), Lodz, Poland, 7-10 May 2019.
98. On the interesting behaviour of a beam with an inclined roller, by S. Lenci, Eighth Symposium on the Mechanics of Slender Structures (MOSS2019), Changsha, China, 24-26 May 2019 (opening lecture).
99. Wave propagation on a beam resting on a unilateral soil, by S. Lenci and F. Clementi, Seventh International Conference on "Nonlinear vibrations, Localization and Energy transfer", Marseille, France, 1-4 July 2019.
100. Semi-parallelization and modification of Simple Cell Mapping method for cluster computations, by N. Andonovski, S. Lenci, "ASME International Design Engineering Technical Congress & Computers and Information in Engineering Conference (IDETC/CIE 2019)," Anaheim, CA, USA, 18-21 August 2019.
101. Periodic orbits of a bouncing mass on a flexible hinged-hinged beam, by L. Demeio, S. Lenci, "AIMETA 2019 - XXIV Congresso Nazionale dell'Associazione Italiana di Meccanica Teorica ed Applicata", Rome, Italy, 16-19 September 2019.
102. Modal asynchronicity in a simply-supported beam with a cantilever extension, by E.A.R. Ribeiro, S. Lenci, B.A.P. Mendes, C.E.N. Mazzilli, "AIMETA 2019 - XXIV Congresso Nazionale dell'Associazione Italiana di Meccanica Teorica ed Applicata", Rome, Italy, 16-19 September 2019.
103. Dynamical integrity in the dynamics of (micro and macro) structures, di P. Berardinelli e S. Lenci, in Discorsi di Dinamica delle Strutture. In memoria del Prof. Francesco Benedettini. L'Aquila, Italy, 13 Febbraio 2020.
104. A detailed analysis of the 1:1 internal resonance in generic 2 dof systems, di S. Lenci, The first Online Conference on Nonlinear Dynamics and Complexity, 23-25 November 2020. (Invited Lecture).
105. Nonlinear Waves in Beams on Tensionless Substrates, di S. Lenci, International Conference on Engineering Vibration, Online, 14-16 December 2020. (Plenary Lecture)
106. Wave motion in a beam on a tensionless foundation, di S. Lenci e F. Clementi, Second

International Nonlinear Dynamics Conference (Nodycon 2021), online, 16-19 February 2021.

107. Chaos in one-dimensional structural mechanics, di S. Lenci, V. Settimi e G. Rega, 14th CHAOS 2021 International Conference, online (Athens), 8-11 June 2021. (Plenary Lecture)
108. 1:2 internal resonances in a beam with an axial elastic boundary condition, di S. Lenci, G. Rega, F. Clementi, L. Kloda e J. Warminski, Eighth International Conference on "Nonlinear vibrations, Localization and Energy transfer", Ascona, Switzerland, 6-9 July 2021 (presentation online).
109. Flexural-axial 1:2 internal resonances in the nonlinear oscillations of a planar beam, di S. Lenci, G. Rega, F. Clementi, L. Kloda e J. Warminski, "ASME International Design Engineering Technical Congress & Computers and Information in Engineering Conference (IDETC/CIE 2021)," online, 17-19 August 2021.
110. Waves in a beam resting on a bilinear Winkler foundation, S. Lenci, "16th International Conference on Dynamical Systems - Theory and Applications (DSTA 2021)", online (Lodz, Poland), 6-9 December 2021.
111. Periodic wave propagation in nonlocal beams resting on a bilinear foundation, S. Lenci, V. Settimi, International Conference on Nonlinear Solid Mechanics (ICoNSoM 2022), Alghero, Sardinia, Italy, 13-16 June 2022.
112. Exact nonlinear oscillations of two linearly and nonlinearly coupled oscillators, S. Lenci, "11th European Solid Mechanics Conference (ESMC2022)," Galway, Ireland, 4-8 July 2022 (Keynote Lecture).
113. Coupled nonlinear oscillators: closed form solutions, S. Lenci, "10th European Nonlinear Dynamics Conference (ENOC 2020+2)," Lyon, France, 17-22 July 2022.
114. Assessing the sensitivity on state-space variables through isometric and anisometric integrity measures, P. Belardinelli, S. Lenci, "ASME International Design Engineering Technical Congress & Computers and Information in Engineering Conference (IDETC/CIE 2022)," Saint Louis, MO, USA, 15-17 August 2022.
115. Nonlinear dynamics of wind turbine rotating blades, S. Lenci, J. Warminski, L. Kloda, "AIMETA 2022 - XXV Congresso Nazionale dell'Associazione Italiana di Meccanica Teorica ed Applicata", Palermo, 4-8 September 2022.

D. TUTORSHIP OF PHD STUDENTS

1) 2007-09 Marcheggiani Laura ..... Synchronization phenomena in complex dynamical systems
2) 2007-09 Clementi Francesco ..... Modeling and challanges in modern and ancient composite materials
3) 2008-10 Ruzziconi Laura ..... Nonlinear dynamics in microelectromechanical systems
4) 2008-10 Consolini Laura ..... Structural glass between design, tests and models
5) 2009-11 Monni Francesco ..... Materiali innovativi per il recupero strutturale del costruito storico: il basalto e l'idea delle cuciture continue per la muratura
6) 2009-11 Piattoni Quintilio ..... Experimental and modeling analysis of historical masonry
7) 2010-12 Isidori Daniela ..... Study for a low cost structural health monitoring system for ordinary buildings: experimental tests on a scale model
8) 2012-15 Belardinelli Pierpaolo ..... Advances in modeling and nonlinear dynamics of microbeam-based structures
9) 2013-16 Pierdicca Alessio ..... Monitoring and Self-diagnosis of Civil Engineering Structures: Classical and Innovative Applications

10) 2013-16 Scalbi Agnese ..... Nonlinear numerical approach to the analysis of Cross-Laminated Timber
11) 2014-17 Mezzapelle Pardo A. ..... A mechanically derived vulnerability index method for seismic risk assessment of existing RC school buildings
12) 2015-18 Maracci Diletta ..... Experimental and numerical characterisation of the mechanical properties of the titanium alloy-lightweight concrete interface
13) 2015-18 Gazzani Valentina ..... Influence of FE modelling on typical and specific vulnerabilities of RC school buildings
14) 2015-18 Poiani Marina ..... Robustness of precast industrial buildings due to damagae accumulation
15) 2016-19 Lukasz Kloda..... Coupled longitudinal-transversal vibrations of a nonlinear planar Timoshenko beams with an axial end spring
16) 2016-19 Nemanja Andonovski ..... Basins of attraction and dynamical integrity of nonlinear dynamical systems in high dimensions
17) 2017-20 Giordano Ersilia ..... A proposal of damage identification and quantification for unreinforced and reinforced masonry structures
18) 2017-20 Ferrante Angela ..... Computational strategies for discrete modeling of Cultural Heritage structures

19) 2018-21 Salachoris Georgios Panagiotis Exploiting Artificial Intellingence to build realistic numerical models: A Digital Twin application in Structural Health Monitoring
20) 2018-21 Standoli Gianluca (co-tutor).... Applications of OMA techniques in civil engineering: automatization of methods for long-term monitoring of structures
21) 2022 Benedetti Kaio César Borges..... Global analysis of stochastic nonlinear dynamical systems. An Adaptative phase-space discretization strategy
22) 2019-22 Bianconi Francesca..... Automated OMA and damage detection: an opportunity for smart SHM systems
23) 2019-22 Schiavoni Mattia..... Distinct element method for architectural heritage: from the past to future advances
25) 2021- Novelli Nico ..... Piecewise Approximators for the Identification of Complex and Hybrid Dynamic Systems
27) 2023- Luciani Marco ..... ongoing

E. PUBLICATIONS

E.1. International Scientific Journals

1. Lenci S., Tarantino A.M., 1994, “Influence of the excitation shape in the classical Duffing's equation,” *Eur. J. Mech. A/Solids*, **13**(4), 569-579.
2. Lenci S., Menditto G., Tarantino A.M., 1994, “The chaotic resonance,” *Eur. J. Mech. A/Solids*, **13**(6), 857-866.
3. Lenci S., Tarantino A.M., 1995, “Bifurcation and chaos in a bilinear constrained column. Part I: Stability analysis and nonliner unperturbed dynamics,” *Eur. J. Mech. A/Solids*, **14**(5), 773-788.

4. Lenci S., Tarantino A.M., 1995, “Bifurcation and chaos in a bilinear constrained column. Part II: chaotic dynamics,” *Eur. J. Mech. A/Solids*, **14**(5), 789-806.
5. Lenci S., Lupini R., 1996, “Homoclinic and heteroclinic solutions for a class of two dimensional hamiltonian systems,” *Zeit. Ang. Math. Phys. (ZAMP)*, **47**(1), 97-111.
6. Lupini R., Lenci S., Gardini L., 1996, “Poincarè maps of impulsed oscillators and two-dimensional dynamics,” *Nuovo Cimento*, **111B**(4), 427-454.
7. Geymonat G., Krasucki F., Lenci S., 1996, “Analyse asymptotique du comportement d'un assemblage collé,” *Comp. Ren. Ac. Sci. Paris*, **322-I**(11), 1107-1112.
8. Lenci S., Tarantino A.M., 1996, “Dynamics of shallow elastic arches. Part I: chaotic response of harmonically shaped arches,” *Eur. J. Mech. A/Solids*, **15**(3), 513-528.
9. Lenci S., Tarantino A.M., 1996, “Dynamics of shallow elastic arches. Part II: optimal forms,” *Eur. J. Mech. A/Solids*, **15**(3), 529-543.
10. Lenci S., Tarantino A.M., 1996, “Chaotic dynamics of an elastic beam resting on a Winkler-type soil,” *Chaos, Sol. & Fract.*, **7**(10), 1601-1614.
11. Lupini R., Lenci S., Gardini L., 1997, “Bifurcation and multistability in a class of two-dimensional endomorphisms,” *Nonlin. Anal. T. M. & A.*, **28**(1), 61-85.
12. Lenci S., Rega G., 1998, “A procedure for reducing the chaotic response region in an impact mechanical system,” *Nonlin. Dyn.*, **15**(4), 391-409.
13. Lenci S., 1998, “On the suppression of chaos by means of bounded excitations in an inverted pendulum,” *SIAM J. Appl. Math.*, **58**(4), 1116-1127.
14. Lenci S., Rega G., 1998, “Controlling nonlinear dynamics in a two-well impact system. Part I: Attractors and bifurcation scenario under symmetric excitations,” *Int. J. Bif. Chaos*, **8**(12), 2387-2407.
15. Lenci S., Rega G., 1998, “Controlling nonlinear dynamics in a two-well impact system. Part II: Attractors and bifurcation scenario under unsymmetric optimal excitation,” *Int. J. Bif. Chaos*, **8**(12), 2409-2424.
16. Lenci S., Menditto G., Tarantino A.M., 1999, “Homoclinic and heteroclinic bifurcations in the nonlinear dynamics of a beam resting on an elastic substrate,” *Int. J. Non-Linear Mech.*, **34**(4), 615-632.
17. Geymonat G., Krasucki F., Lenci S., 1999, “Mathematical analysis of a bonded joint with soft thin adhesive,” *Math. Mech. Solids*, **4**(2), 201-225.
18. Lenci S., 1999, “Bonded joints with nonhomogeneous adhesives,” *J. Elasticity*, **53**(1), 23-35.
19. Krasucki F., Lenci S., 2000, “Analysis of interfaces of variable stiffness,” *Int. J. Solids & Struct.*, **37**(26), 3619-3632.
20. Lenci S., Menditto G., 2000, “Weak interface in long fiber composites,” *Int. J. Solids & Struct.*, **37**(31), 4239-4260.
21. Lenci S., 2000, “Melan’s problems with weak interface,” *ASME J. Appl. Mech.*, **66**(1), 22-28.
22. Krasucki F., Lenci S., 2000, “Yield design of bonded joints,” *Eur. J. Mech. A/Solids*, **19**(4), 649-667.
23. Lenci S., Rega G., 2000, “Periodic solutions and bifurcations in an impact inverted pendulum under impulsive excitation,” *Chaos, Sol. & Fract.*, **11**(15), 2453-2472.
24. Lenci S., Rega G., 2000, “Numerical control of impact dynamics of inverted pendulum through optimal feedback strategies,” *J. Sound Vibr.*, **236**(3), 505-527.
25. Lenci S., 2000, “A limit model in the analysis of steel-concrete beams,” *Math. Mod. Meth. Appl. Sci.*, **10**(8), 1233-1250.
26. Lenci S., 2000, “An existence theorem for the limit analysis problem,” *Comp. Ren. Ac. Sci. Paris*, **328-IIb**(10), 713-718.
27. Lenci S., Lupini R., 2001, “Chaotic linear maps,” *Nonlin. Anal. T. M. & A.*, **45**(6), 707-721.
28. Lenci S., 2001, “Analysis of a crack at a weak interface,” *Int. J. Fracture*, **108**(3), 275-290.

29. Lenci S., Rega G., 2003, "Optimal numerical control of single-well to cross-well chaos transition in mechanical systems," *Chaos, Sol. & Fract.*, **15**(1), 173-186.
30. Lenci S., Rega G., 2003, "Optimal control of homoclinic bifurcation: Theoretical treatment and practical reduction of safe basin erosion in the Helmholtz oscillator," *J. Vibr. Control*, **9**(3), 281-315.
31. Rega G., Lenci S., 2003, "Nonsmooth dynamics, bifurcation and control in an impact system," *Syst. Anal. Mod. Simul.*, **43**(3), 343-360.
32. Lenci S., Rega G., 2003, "Optimal control of nonregular dynamics in a Duffing oscillator," *Nonlin. Dyn.*, **33**(1), 71-86.
33. Lenci S., Rega G., 2003, "Regular nonlinear dynamics and bifurcations of an impacting system under general periodic excitation," *Nonlin. Dyn.*, **34**(3), 249-268.
34. Lenci S., Rega G., 2004, "Global optimal control and system-dependent solutions in the hardening Helmholtz-Duffing oscillator," *Chaos, Sol. & Fract.*, **21**(5), 1031-1046.
35. Lenci S., Rega G., 2004, "Higher-order Melnikov functions for single-d.o.f. oscillators: Theoretical treatment and applications," *Math. Prob. Eng.*, **2004**(2), 145-168.
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37. Lenci S., 2004, "Elastic and damage longitudinal shear behaviour of highly concentrated long fiber composites," *Meccanica*, **39**(5), 415-439.
38. Lenci S., Callegari M., 2005, "Simple analytical models for the J-lay problem," *Acta Mech.*, **178**, 23-39.
39. Lenci S., Rega G., 2005, "Heteroclinic bifurcations and optimal control in the nonlinear rocking dynamics of generic and slender rigid blocks," *Int. J. Bif. Chaos*, **15**(6), 1901-1918.
40. Rega G., Lenci S., 2005, "Identifying, evaluating, and controlling dynamical integrity measures in nonlinear mechanical oscillators," *Nonlin. Anal. T. M. & A.*, **63**, 902-914.
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45. Demeio L., Lenci S., 2006, "Asymptotic analysis of chattering oscillations for an impacting inverted pendulum," *Quart. J. Mech. Appl. Math.*, **59**(3), 419-434.
46. Xu X., Pavlovskaia E., Wiercigroch M., Romeo F., Lenci S., 2007, "Dynamic interactions between parametric pendulum and electrodynamical shaker," *ZAMM-Z. Angew. Math. Mech.*, **87**(2), 172-186.
47. Demeio L., Lenci S., 2007, "Forced nonlinear oscillations of semi-infinite cables and beams resting on a unilateral elastic substrate," *Nonlin. Dyn.*, **49**, 203-215.
48. Lancioni G., Lenci S., 2007, "Forced nonlinear oscillations of a semi-infinite beam resting on a unilateral elastic soil: analytical and numerical solutions," *ASME J. Comp. Nonlin. Dyn.*, **2**(2), 155-166.
49. Lenci S., Rega G., 2007, "Dimension reduction of homoclinic orbits of buckled beams via the nonlinear normal modes technique," *Int. J. Non-Linear Mech.*, **42**(3), 515-528.
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54. Demeio L., Lenci S., 2008, “Second-order solutions for the dynamics of a semi-infinite cable on a unilateral substrate,” *J. Sound Vibr.*, **315**(3), 414-432.
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59. Lenci S., Clementi F., 2009, “Simple mechanical model of curved beams by a 3D approach,” *ASCE J. Eng. Mech.*, **135**(7), 597-613.
60. Chacon R., Martinez P.J., Martinez J.A., Lenci S., 2009, “Chaos suppression and desynchronization phenomena in periodically coupled pendula subjected to localized heterogeneous forces,” *Chaos, Sol. & Fract.*, **42**(4), 2342-2350.
61. Quagliarini E., Lenci S., Iorio M., 2010, “Mechanical properties of adobe walls in a Roman Republican domus at Suasa,” *J. Cult. Heritage*, **11**(2), 130-137.
62. Quagliarini E., Lenci S., 2010, “The influence of natural stabilizers and natural fibers on the mechanical properties of ancient Roman adobe bricks,” *J. Cult. Heritage*, **11**(3), 309-314.
63. Marcheggiani L., Lenci S., 2010, “On a model for the pedestrians-induced lateral vibrations of footbridges,” *Meccanica*, **45**(4), 531-551.
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65. Lenci S., Rega G., 2011, “Detecting stable-unstable nonlinear invariant manifold and homoclinic orbits in mechanical systems,” *Nonlin. Dyn.*, **63**(1), 83-94.
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68. Lenci S., Rega G., 2011, “Experimental vs theoretical robustness of rotating solutions in a parametrically excited pendulum: a dynamical integrity perspective,” *Physica D*, **240**(9-10), 814-824.
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81. Quagliarini E., Monni F., Lenci S., Bondioli F., 2012, “Tensile characterization of basalt fibre ropes and rods: a first contribution,” *Constr. Build. Materials*, **34**, 372-380.
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190. Lenci S., Clementi F., 2021, "Natural frequencies and internal resonance of beams with arbitrarily distributed axial loads," *Journal of Applied and Computational Mechanics*, **7**, 1009-1019 (Special Issue in Honor of Prof. Fabio Casciati and Lucia Faravelli 70th Birthday). DOI: 10.22055/JACM.2020.32927.2104
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199. Giordano E., Ferrante A., Salachoris G.P., Schiavoni M., Clementi F., Lenci S., 2021, "Dynamic identification and numerical model updating of an old bell-tower in Marche Region

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201. Kloda L., Lenci S., Warminski J., Szmit Z., 2022, "Flexural-flexural internal resonances 3:1 in initially straight, extensible Timoshenko beams with an axial spring," *Journal of Sound and Vibration*, **527**, 116809-1-18. DOI: 10.1016/j.jsv.2022.116809
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203. Belardinelli P., Chandrashekar A., Wiebe R., Alijani F., Lenci S., 2022, "Machine learning to probe modal interaction in dynamic atomic force microscopy," *Mechanical Systems and Signal Processing*, **179**, 109312-1-12. DOI: 10.1016/j.ymssp.2022.109312
204. Demeio L., Lenci S., 2022, Periodic traveling waves in a taut cable on a bilinear elastic substrate, *Applied Mathematical Modelling*, **110**, 603-617. DOI: 10.1016/j.apm.2022.06.009
205. Demeio L., Lenci S., 2022, Wave propagation in a string resting on a general nonlinear substrate, *SIAM Journal on Applied Mathematics*, accepted.
206. Lenci S., Udwadia F., 2022, "Suppression of Overshoots and Undershoots in Nonlinear Structural and Mechanical Systems," *Acta Mechanica*, accepted.
207. Coccolo M., Seoane J.M., Lenci S., Sanjuan M.A.F., 2023, Fractional derivative effects on asymptotic behavior in the Duffing oscillator, *Communications in Nonlinear Science and Numerical Simulation*, **117**, 106959. DOI: 10.1016/j.cnsns.2022.106959
208. Benedetti K.C.B., Goncalves P.B., Lenci S., Rega G., 2023, An operator methodology for the global dynamic analysis of stochastic nonlinear systems, *Theoretical and Applied Mechanics Letters*, accepted (Special Issue "Nonlinear and stochastic dynamics"). DOI: 10.1016/j.taml.2022.100419

E.2. Books

209. Lenci S., 2004, *Lezioni di Meccanica Strutturale*, Pitagora Editrice, Bologna, ISBN 88-371-1461-3.
210. Consolini L., Lenci S., 2007, *Percorsi per un metodo progettuale tra forma e struttura*, Consolini L., Lenci S. (curatori), 2015, *Forma e struttura, tra architettura e ingegneria*, Ermes edizioni, ISBN 978-88-6975-025-0.
211. Aracne Editrice, Ancona, ISBN 978-88-548-1341-0.
212. Lenci S. (curatore), 2009, *Atti del XIX Congresso Aimeta, Ancona 14-17 settembre 2009*, Aras Edizioni, ISBN 978-88-96378-08-3.
213. Clementi F., Lenci S., 2009, *I compositi nell'ingegneria strutturale. L'adeguamento statico e sismico di strutture in c.a. e muratura secondo il CNR-DT 200/2004, la NTC e le relative circolari applicative*, Esculapio Editrice, Ancona, ISBN 978-88-7488-338-7.
214. Quagliarini E., Lenci S. (curatori), 2010, *Il plafone del teatro dei filarmonici di Ascoli Piceno. Conoscenza e valorizzazione.* Alinea Editrice, Ancona, ISBN 978-88-6055-511-3.
215. Lenci S., Quagliarini E., Piattoni Q. (curatori), 2011. *Ingegneria e Archeologia. Dalla planimetria di scavo alla terza dimensione dell'elevato. La chiesa paleocristiana di Santa Maria in Portuno di Corinaldo (AN)*. Aracne Editrice, ISBN 978-88-548-3880-2.
216. J. Warminsky, S. Lenci, M.P. Cartmell, G. Rega, M. Wiercigroch (Eds.), 2012, *Nonlinear Dynamics Phenomena in Mechanics*, Springer-Verlag, ISBN 978-94-007-2472-3, e-ISBN 978-94-00773-0, DOI 10.1007/978-94-007-2473-0, http://www.springer.com/978-94-007-2472-3.
217. Lenci S., Quagliarini E., Vallucci S., 2013, *Corinaldo sotterranea. Gli ipogei della città*

murata e la loro influenza sulla vulnerabilità del costruito storico. Aracne Editrice, ISBN 987-88-548-5841-1.

218. Lenci S., Warminski J. (Eds.), 2013, *New Advances in the Nonlinear Dynamics and Control of Composites for Smart Engineering Design*, Proceedings of the Euromech Colloquium n. 541, Clua Edizioni, ISBN 978-88-87965-72-8.
219. Vallucci S., Quagliarini E., Lenci S., 2014, *Costruzioni storiche in muratura. Vulnerabilità sismica e progettazione degli interventi*, Wolters Kluwer Italia, ISBN 978-88-6750-221-9.
220. Mondaini G., Tombolini C., Lenci S. (curatori), 2017, *San Francesco ad Alto di Ancona. Storia, analisi e ipotesi di valorizzazione architettonica*. Gioacchino Onorati editore, ISBN 978-88-255-0409-5.
221. Lenci S., Rega G. (Eds), 2019, *Global Nonlinear Dynamics for Engineering Design and System Safety*, Springer, ISBN 978-3-319-99709-4, e-ISBN 978-3-319-99710-0, DOI: 10.1007/978-3-319-99710-0.
222. Kovacic I., Lenci S. (Eds), 2020, *IUTAM Symposium on Exploiting Nonlinear Dynamics for Engineering Systems*, IUTAM Bookseries 37, Springer, ISBN 978-3-030-23691-5, e-ISBN 978-3-030-23692-2, DOI: 10.1007/978-3-030-23692-2.

F. SCIENTIFIC AND ACADEMIC REVISIONS

- Reviewer for QS World University Rankings.
- Reviewer for 205 internationl scientific journals.
- International reviewer for research project funded by:

Argentina-Italia: Consorzio Universitario Italiano per l'Argentina (CUIA)
Austria: Austrian Science Foundation
Belgium: University of Liege
Canada: Natural Sciences and Engineering Research Council of Canada (NSERC)
Europe: Horizon 2020
Europe: Marie Skłodowska-Curie fellowship programme
Europe: European Research Council (ERC)
Hungary: Hungarian Academy of Sciences
Israel: Israel Science Foundation
Israel: US-Israel Binational Science Foundation
Japan: Japan Society for the Promotion of Science
Kazakhstan: National Center of Science and Technology Evaluation of Kazakhstan
Poland: National Science Centre (Narodowe Centrum Nauki - NCN)
Poland: Polish National Agency for Academic Exchange (NAWA)
Romania: National Council for Research and Development
Serbia: The Science Fund of the Republic of Serbia
The Netherlands: Technology Foundation STW
United Kingdom: The Nuffield Foundation, London
United Kingdom: Royal Society of London

G. ACADEMIC AND SCIENTIFIC ACTIVITY

G.1. Editorial activity

- 2007-, Editorial Board *International Journal of Non-Linear Mechanics*. ISSN: 0020-7462
- 2010-2018, Associate Editor *Mathematical Problems in Engineering*. ISSN: 1024-123X
- 2011-2016, Associate Editor *ASME Journal of Computational and Nonlinear Dynamics*. ISSN:

1555-1415
in 2015, first recipient of the ASME Journal of Computational and Nonlinear Dynamics Distinguished Service as an Associate Editor Award.

- 2012-2018, Associate Editor *Meccanica*. ISSN: 0025-6455
- 2012-2017, Associate Editor *J. Applied Nonlinear Dynamics*. ISSN: 2164-6457 (print), ISSN: 2164-6473 (online)
- 2013-, Associate Editor *Nonlinear Theory and Its Applications* (*NOLTA*), an online journal published quarterly by the Institute of Electronics, Information and Communication Engineers (IEICE). ISSN: 2185-4106
- 2014-2018, Associate Editor *Int. J. Dynamics and Control*. ISSN: 2195-268X (print), ISSN: 2195-2698 (online)
- 2016-, Associate Editor *Nonlinear Dynamics*. ISSN: 0924-090X (Print), 1573-269X (Online).
- 2017-, Associate Editor *ASME Journal of Vibration and Acoustics*. ISSN: 0739-3717
- 2017, Editor *Journal of Vibration Testing and System Dynamics*. ISSN: 2475-4811 (print), eISSN 2475-482X (Online)
- 2018-, Editorial Board *International Journal of Mechanical Sciences*, ISSN: 0020-7403.
- 2018-, Associate Editor *European Journal of Mechans A/Solids*, ISSN: 0997-7538.
- 2019-, Editorial Board of the Book series "Nonlinear Physical Science", *L&H Scientific Publishing* and *Springer*.
- 2020-, Editorial Board in "Physical Sensors", section of *Sensors*, ISSN: 1424-8220.
- 2020-, Editorial Board of "ZAMM (Journal of Applied Mathematics and Mechanics – Zeitschrift für Angewandte Mathematik und Mechanik)", ISSN:1521-4001.

G.2. Membership of Scientific Committees

- 2007-13, Member of the Technical Committee on Control and Dynamics of Structures and Systems" della American Society of Mechanical Engineering (ASME).
- 2010-13, Member of the Steering Committee of the Italian Society for Complexity and Chaos (SICC), 2010-2013.
- 2010-13, Editor of the Newsletter of the Italian Society for Complexity and Chaos (SICC).
- 2011-, Member of the "Technical Committee on Vibrations" of the *International Federation for the Promotion of Mechanism and Machine Science* (IFToMM).
- 2012-14, Member of the Steering Committee of the ASME Italy Chapter.
- 2012-, Member of the "Technical Committee on Multibody Systems and Nonlinear Dynamics (MSND)" of the American Society of Mechanical Engineering (ASME).
- 2012-18, Member of the "Technical Committee on Vibration and Sound (TCVS)" of the American Society of Mechanical Engineering (ASME).
- Member of the Student Paper Competition Committee of the Multibody Systems Nonlinear Dynamics Conference at the ASME/IDETC 2013 Conference, Portland, USA.
- Member of the Subcommittee charged to establish guidelines, eligibility, selection criteria, and

other issues related to the an “Early Career Award for Research Excellence in Vibration and Acoustics”, ASME TCVS.

- 2014-, Member of the Steering Committee of the Italian Association for Theoretical and Applied Mechanics (AIMETA).
- Chairman of the Evaluation Committee of the “Premi Aimeta Junior 2015”.
- Chairman of the MSNDC Best Student Paper Award Committee at the ASME/IDETC 2015 Conference, Boston, USA.
- Member of the evaluation committee of “The 2016 MSNDC Conference Award for the Best Nonlinear Dynamics Paper”, ASME IDETC Conference, Charlotte, VA, USA.
- 2016-, Co-chair (with Andreas Muller) of the Committee on ASME fellowships within the MSND-TC.
- Chair of the Committee for the “The 2017 MSNDC Conference Award for the Best Nonlinear Dynamics Paper”, Cleveland, OH, USA.
- **2018-, Member of the “European Nonlinear Oscillation Conference (ENOC) Committee”, part of the EUROMECH.**
- 2017-19, Segretary of the “Technical Committee on Multibody Systems and Nonlinear Dynamics (MSND)”, American Society of Mechanical Engineering (ASME).
- **2018-21, President of the Italian Association for Theoretical and Applied Mechanics (AIMETA).**
- **2019-, Member of the International Advisory Committee of the Institute of Theoretical and Applied Mechanics of the Academy of Science of the Czech Republic.**
- Member of the “Ali H. Nayfeh Award Selection Committee” within the First International Nonlinear Dynamics Conference (NODYCON), Rome, 17-20 February 2019.
- 2019-21, Vice-Chair of the “Technical Committee on Multibody Systems and Nonlinear Dynamics (MSND)”, American Society of Mechanical Engineering (ASME).
- Member of the selection committee for the two nominated papers for J. Vibration and Acoustics Paper of the Year 2021.
- Member of the External Users Advisory Board del Progetto “CHIMERA”, CHIckens Manure Exploitation and RevAluation" Project - GA n. LIFE15 ENV/IT/000631, program EU LIFE.
- Reviewer of the Student Paper Competition Committee of the Multibody Systems Nonlinear Dynamics Conference at the ASME/IDETC 2021 Conference, online.
- **2021- Chair del “Technical Committee on Multibody Systems and Nonlinear Dynamics (MSND)”, American Society of Mechanical Engineering (ASME).**
- Member of the Student Paper Competition Committee of the Multibody Systems Nonlinear Dynamics Conference at the ASME/IDETC 2022 Conference, Saint Louis, MO, USA, 15-17 August 2022.
- **2022- elected Member of the Congress Committee of International Union of Theoretical and Applied Mechanics (IUTAM).**
- **2022- Honors and Awards Chair for the ASME Design Engineering Division, American Society of Mechanical Engineering (ASME).**

- **2022- Member of the Executive Committee of the Design Engineering Division (DED), American Society of Mechanical Engineering (ASME).**

G.3. Scientific events

G.3.1. Organization of Scientific events

1. Organization of the workshop on "Nonlinear Dynamcis and Chaos in Engineering," Ancona, 27 April 2006.
2. **Chairman of the Organization Committee of the 2009 Italian Congress of Mechanics (Aimeta 2009), Ancona, 14-17 September 2009.**
3. Organization (with L. Gardini and M. di Bernardo) of the SICC 7th International Tutorial Workshop "Nonlinear Dynamics of Piecewise-Smooth Dynamical Systems," Urbino (PU), Italy, 21-23 September, 2011.
4. **Chairman of the Euromech Colloqium n. 541 "New Advances in the Nonlinear Dynamics and Control of Composites for Smart Engineering Design", Senigalia, Ancona, Italy, 2013.**
5. Organization (with A. Luongo) of the Workshop "Dynamics, stability and control of flexible structure," Senigallia, Ancona, Italy, 7 June 2013.
6. **Organization (with G. Rega) of the CISM course "Global Nonlinear Dynamics for Engineering Design and System Safety," Udine, Italy, 13-17 June 2016.**
7. **Technical Program Co-Chair of the ASME IDETC 2017, Cleveland, Ohio, USA, 6-9 August 2017.**
8. **Co-chair (with Ivana Kovacic) of the IUTAM Symposium "Enolides – Exploring Nonlinear Dynamics for Engineering Systems," Novi Sad, Serbia, 15-19 July 2018.**
9. **Co-chair (with Pedro Ribeiro and Sondipon Adhikari) of the Euromech Symposium n. 603 "Dynamics of micro and nano electromechanical systems: multi-field modelling and analysis," Porto, Portugal, 5-7 September 2018.**
10. Co-chair (with J. Warminski) of the Symposium on "Dynamics and Vibration", Fourth International Conference on Recent Advances in Nonlinear Mechanis (RANM 2019), Lodz, Poland, 7-10 May 2019.
11. Chair della Summer School "Advanced Methods of Nonlinear Dynamics", 3-9 June 2019, Ancona, Italy.
12. Co-chair (with Remco Leine) of the MS "Nonlinear Dynamics for Design," 25th International Congress of Theoretical and Applied Mechanics, ICTAM2020, Milan, Italy, 23-28 August 2020.
13. Chair of the Summer School "Resilient buildings and cities", Ancona 20-25 June 2022.
14. **Chair of the IUTAM Symposium "Nonlinear dynamics of systems and structures for green energy generation," Ancona, Italy, 2-5 June 2025.**

26 February 2025 (updated 26/02/25)