

Biagio Carboni

Curriculum Vitae

Date: 11/01/2020

Part I – General Information

Full Name	Biagio Carboni
Citizenship	Italian
Spoken Languages	Italian, English

Part II – Education and habilitations

Type	Data	Institution	Notes (Degree, Experience)
(ASN) National Scientific Habilitations	October 1, 2018	Italian Ministry of Education (MIUR)	Qualification to the role of associate professor in the Scientific Sector ICAR/08, Competition Sector 08/B2
PhD in Structural engineering	October 6, 2014	Sapienza University of Rome, (Department of Structural and Geotechnical Engineering)	Final exam with external committee
Professional habilitation as Civil Engineer	April 11, 2011	Sapienza University of Rome	Section A (Master's Degree)
Master's graduation	July 19, 2010	Sapienza University of Rome, Faculty of Civil and Industrial Engineering	Master's degree in civil engineering (Structural engineering), vote 110/110
Bachelor's graduation	March 6, 2007	Facoltà di Ingegneria, Sapienza Università di Roma	Bachelor's degree in civil engineering, vote 102/110

Part III – Appointments

IIIA – Academic Appointments

Start	End	Institution	Position
August 1, 2019	July 31, 2020	Sapienza University of Rome, (Department of Structural and Geotechnical Engineering)	Research associate (Assegnista di Ricerca)

August 1, 2018	July 31, 2019	Sapienza University of Rome, (Department of Structural and Geotechnical Engineering)	Research associate (Assegnista di Ricerca)
July 1, 2018	September 30, 2018	University of Rome 3, (Department of Engineering)	Highly specialized consultancy for the project: “Caratterizzazione meccanica/dinamica di compositi e nanocompositi” (Prot. 1934/2018, Rep 55/2018, Selection code 1818/2018 Università degli Studi di Roma 3, Dipartimento di Ingegneria)
May 1, 2017	April 30, 2018	Sapienza University of Rome, (Department of Structural and Geotechnical Engineering)	Research associate (Assegnista di Ricerca)
May 2016	April 30, 2017	Sapienza University of Rome, (Department of Structural and Geotechnical Engineering)	Research associate (Assegnista di Ricerca)
May 1, 2015	April 30, 2016	Sapienza University of Rome, (Department of Structural and Geotechnical Engineering)	Research associate (Assegnista di Ricerca)
May 1, 2014	April 30, 2015	Sapienza University of Rome, (Department of Structural and Geotechnical Engineering)	Research associate (Assegnista di Ricerca)
February 15, 2016	May 31, 2016	Consorzio Interuniversitario per l’informatica, Via Salaria 113, Roma	Highly specialized consultancy for tuned mass damper installation on container crane in the Cagliari Port (Italy) Sardinia region founding L.R. 2007 Tender
May 26, 2015	May 29, 2015	TU Delft, Department of Precision and Microsystem Engineering, Delft, Netherlands	Visiting Researcher (hosted by Prof. W. Lacarbonara)
February 2009	July 2009	Laboratoire Central des Ponts et Chaussées, (actually IF STARR), Paris, France	Visiting Master Student (hosted by Prof. F. Bourquin)

IIIB – Other Appointments

(Conferences Organization, Session Chairman, Peer Reviewer)

Start	End	Institution	Position
September 15, 2019	September 19, 2019	XXIV Congresso – Associazione Italiana di Meccanica Teorica e Applicata (AIMETA 2019), Rome, Italy	Support to the organization

February 17, 2019	February 20, 2019	I International Conference on Nonlinear Dynamics, Rome, Italy	Co-chair of the mini symposium “Nonlinear dynamics of mechanical and structural systems, Passive energy Damping II” on February 19, 2019.
September 2019	February 2019	I International Conference on Nonlinear Dynamics, Rome, Italy	Member of the Organizing Committee
September 10, 2017	September 13, 2017	X International Conference on Structural Dynamics (EURODYN 2017), Rome, Italy	Co-chair of the mini symposium “Vibration control and mitigation” (MS12-V) on September 12, 2017
September 10, 2017	September 13, 2017	X International Conference on Structural Dynamics (EURODYN 2017), Rome, Italy	Support to the organization
June 2011	July 2011	7th European Nonlinear Dynamics Conference (ENOC 2011), Rome, Italy	Support to the organization
2019	today	SAGE, Journal of Mechanical Engineering Science	Peer Reviewer
2018	today	ASCE, Journal of Material in Civil Engineering	Peer Reviewer
2017	today	Elsevier, Journal of Wind Engineering and Industrial Aerodynamics	Peer Reviewer
2016	today	Elsevier, Mechanical System and Signal Processing	Peer Reviewer
2015	today	Springer, Nonlinear Dynamics	Peer Reviewer
2015	today	ASCE, Journal of Engineering Mechanics	Peer Reviewer
2015	today	Springer, Journal of Zhejiang University	Peer Reviewer
2013	today	Elsevier, Communications in Nonlinear Science and Numerical Simulation	Peer Reviewer
2012	today	Elsevier, Journal of Sound and Vibration	Peer Reviewer

IIIC – Conference Presentations

Date	Conference	Place
September 4-9, 2017	XXIV Congresso - Associazione Italiana di Meccanica Teorica e Applicata (AIMETA 2017)	Salerno, Italy
June 25-30, 2017	9th European Nonlinear Dynamics Conference (ENOC 2017)	Budapest, Hungary
June 5-8, 2017	8th Thematic Conference on Smart Structures and Materials (ECOMAS)	Madrid, Spain
September 14-17, 2015	XXII Congresso - Associazione Italiana di Meccanica Teorica e Applicata (AIMETA 2015)	Genova, Italy
August 2-5, 2015	ASME International Design Engineering Technical Conferences Computers and Information in Engineering Conference (IDETC/CIE 2015)	Boston, USA
May 19-21, 2014	2nd International Conference on Structural Dynamics and Diagnosis	Agadir, Morocco
April 29-May 2, 2012	1st International Conference on Structural Dynamics and Diagnosis	Marrakech, Morocco

IIID – Invited Seminars and presentations

Date	Institution	Description
July 27, 2019	IMAST S.c.a.r.l. and Value Service S.p.A., via Piave 66, Roma, Italy	Presentation of “Funi ad alte prestazioni in materiale nanocomposito e leghe a memoria di forma per strutture, sistemi e dispositivi avanzati” for the project “Boost your Tech”
July 1, 2019	Sapienza University of Rome, Aula Magna, Piazzale Aldo Moro 5, Rome, Italy	Presentation of different research activities during the event “Grip the Future” organized by “Consorzio Sapienza Innovazione”
July 28, 2018	Tensarity Solution, Via Ugo la Malfa 86/88, 25050, Provaglio d'Iseo (BS), Italy	Presentation of: “W. Lacarbonara, B. Carboni-Tensairity structure with shape memory alloy”, International Patent US15/756,585, EP16801320.9A, CN201680055349.2A.
October 12-14, 2018	MakerFaire, Rome, Fiera di Roma, Via Portuense, 1645/647, Rome, Italy	Presentation of: “W. Lacarbonara, B. Carboni-Multi-performance hysteretic rheological device”, International Patent EP16722955.8A, US15/548,89 e CN201680021923.2A.); Shape memory Wire ropes; Nanocomposites wires.

October 28, 2017	Redaelli S.p.A., Via Matteotti 311, Gardone Val Trompia (BS), Italy	Presentation of an “Identification procedure for the flexural-tensile response of steel wire ropes”; audience: Prof W. Lacarbonara (Sapienza Univ. of Rome), Eng. D. Rossini (Redaelli) and Eng. M. Maleddu (Redaelli)
April 6, 2017	Bridgestone S.p.A., Via del Fosso del Salceto 13/15, Rome, Italy	Presentation of “Possible experimental methods for nonlinear vibrations identification in Tires”; audience: Dr A. Arena (Sapienza Univ. of Rome), Eng. M. Ciampa (Bridgestone) and Component of the Dynamical Testing Team (Bridgestone)
April 14, 2016	Poma S.A., 109 Rue Aristide Berges, Voreppe, France	Presentation of “Wireless sensor network for dynamical tests on ropeway”; audience: Prof W. Lacarbonara (Sapienza Univ. of Rome), Dr. M. Babaz (Poma project manager) and Design Engineering work team (Poma project)
June 2, 2015	Leitner S.p.a., Via Brennero 34, Vipiteno (BZ), Italy	Presentation of “Identification procedure for the flexural-tensile response of steel wire ropes”; audience: Prof W. Lacarbonara (Sapienza Univ. of Rome), Dr. M. Babaz (POMA S.p.a.) and Eng. R. Bea (Leitner)
May 29, 2015	Siemens Ltd (Wind Power and Renewables Department), The Hague, Netherlands	Presentation of “Nonlinear vibration absorbers for vibration mitigation in Off-Shore wind turbines”; audience: Prof W. Lacarbonara (Sapienza Univ. of Rome), Eng. Jelte Van Til (TU Delft) and Eng. S. Voormeeren (Siemens)
July 23, 2013	SAES Getters S.p.a., Viale Italia 77 Lainate, (MI) Italy	Presentation of experimental results related to “Flexural and Tensile tests on Shape memory Wire Rope”; audience: Prof. F. Auricchio (Univ. Pavia), Prof W. Lacarbonara (Sapienza Univ. of Rome), Eng. F. Butera (SAES Getters) and Eng. Carlo Spreafico (Intra.flex s.r.l, Oggiono, Italy)
June 26, 2009	Laboratoire Central des Ponts et Chaussées, 58, boulevard Lefebvre Paris, France	Presentation of research activities: “Inverse Thermal problem for damage detection”; audience: Division for metrology and instrumentation

IIID – Experimental Campaigns

Date	Institution	Description
December, 2019	Sapienza University of Rome, Department of Structural and Geotechnical Engineering, Laboratory of Materials and Structures	Coordination of experimental activities for the evaluation of the Frequency Response Curves of composite polymeric-carbon nanotube cantilevers; Experimental setup: Shaker DongLing, Microepsilon Laser Displacement Transducer, PCB accelerometers and National Instruments acquisition unit; Master student: Sawan Guruva
November 2019	Sapienza University of Rome, Department of Structural and Geotechnical Engineering, Laboratory of Materials and Structures	Coordination of experimental activities for the evaluation of the Enidine wire rope isolator hysteretic cycles; Experimental setup: Electrostatic Zwick and Roell testing machine; Master students: Miriam Di Nicola and Francesco Capocchiano
December 2018	Sapienza University of Rome, Department of Structural and Geotechnical Engineering, Laboratory of Materials and Structures	Execution (in collaboration with Dr. Michela Talò) of experimental activities for the evaluation of the Frequency Response Curves of composite polymeric carbon nanotube cantilevers; Experimental setup: Shaker DongLing, Microepsilon Laser Displacement Transducer, PCB accelerometers and National Instruments acquisition unit
November 2018	Sapienza University of Rome, Department of Structural and Geotechnical Engineering, Laboratory of Materials and Structures	Coordination of experimental activities for the evaluation of the nonlinear dynamic response of an Enidine wire rope isolator; Experimental setup: Shaker DongLing, Microepsilon Laser Displacement Transducer, PCB accelerometers and National Instruments acquisition unit; PhD candidate: Andrea Salvatore
September 2018	Sapienza University of Rome, Department of Structural and Geotechnical Engineering, Laboratory of Materials and Structures	Coordination of quasistatic experimental activities for the evaluation of the Enidine wire rope isolator hysteretic cycles; Experimental setup: Electrostatic Zwick and Roell testing machine; Master's Student in Civil Engineering: Marco Antonelli
April 2018	Sapienza University of Rome, Department of Structural and Geotechnical Engineering, Laboratory of Materials and Structures	Coordination of experimental activities for the evaluation of the Frequency Response Curves of wire ropes subject to flexural cycles; Experimental setup: Electrostatic Zwick and Roell testing machine; Master's Student: Constance Bebey

April 13, 2017	POMA S.A., 109 rue Aristide Bergés, 38340 Voreppe, France	Coordination of in situ experimental campaign on the “Cable-Cars Lift System” in Chamrousse, (Grenoble, France) targeted to the acquisition of experimental data for the validation of a ropeway model; Experimental setup: 2 synchronized Wireless Sensor Networks, 18 total sensor units equipped with triaxial-gyroscope, triaxial linear accelerometer, and thermo-couple.
February 27, 2017	Sapienza University of Rome, Department of Structural and Geotechnical Engineering, Laboratory of Materials and Structures	Coordination of dynamic experimental campaign for the validation of 2 synchronized Wireless Sensor Networks, 18 total sensor units equipped with triaxial-gyroscope, triaxial linear accelerometer, and thermo-couple (project for POMA S.A., 109 rue Aristide Bergés, 38340 Voreppe, France); Experimental setup: Shaker DongLing, Microepsilon Laser Displacement Transducer, PCB accelerometers and National Instruments acquisition unit.
October 2017	Sapienza University of Rome, Faculty of Civil and Industrial Engineering, Department of Structural and Geotechnical Engineering, Laboratory of Materials and Structures	Coordination of static/dynamic experimental campaign on SMA NiTiNOL wires and ropes; Experimental setup: MTS Testing machine, MTS Climatic Chamber, Thermo-camera Flir; Bachelor’s Student: Federico D’Amico
February 4, 2016	Sapienza University of Rome, Faculty of Civil and Industrial Engineering, Department of Structural and Geotechnical Engineering, Laboratory of Materials and Structures, DIAMONDS s.r.l., Via Val Trompia 64, Rome, Italy	Support to the execution of in situ experimental campaign on the concrete tunnel “Galleria Montedomini” in Ancona; Experimental setup PCB accelerometers, Impact hammer and National Instruments acquisition unit.
June 2015	Sapienza University of Rome, Department of Structural and Geotechnical Engineering, Laboratory of Materials and Structures	Execution of static experimental campaign for International Patent W. Lacarbonara, B. Carboni, “Tensairity structure with shape memory alloy”, US15/756,585, EP16801320.9A, CN201680055349.2A; Experimental setup: MTS Testing machine,
January 2015	Sapienza University of Rome, Faculty Department of Structural and Geotechnical Engineering, Laboratory of Materials and Structures	Execution of static experimental campaign for validation of a new experimental setup for wire rope bending tests; Experimental setup: MTS Testing machine

November 2014	Sapienza University of Rome, Department of Structural and Geotechnical Engineering, Laboratory of Materials and Structures	Execution of dynamic experimental campaign on “Multi-performance hysteretic rheological device”; collaboration with Prof. S.F. Masri (University of Southern California, USA); Experimental setup: Moog shaking table, Laser and inductive Displacement Transducers, PCB accelerometers and National Instruments acquisition unit.
2013	Sapienza University of Rome, Department of Structural and Geotechnical Engineering, Laboratory of Materials and Structures	Execution of dynamic experimental campaign on (1:5) 5-story steel building for TMD validation of “Multi-performance hysteretic rheological device”; for Biagio Carboni PhD thesis: Experimental setup: Moog shaking table, Laser and inductive Displacement Transducers, PCB accelerometers and National Instruments acquisition unit.
2012	Sapienza University of Rome, Department of Structural and Geotechnical Engineering, Laboratory of Materials and Structures	Execution of dynamic experimental campaign on “Multi-performance hysteretic rheological device”; for Biagio Carboni PhD thesis: Experimental setup: Moog shaking table, Laser and inductive Displacement Transducers, PCB accelerometers and National Instruments acquisition unit.
2011	Sapienza University of Rome, Department of Structural and Geotechnical Engineering, Laboratory of Materials and Structures	Execution of static experimental campaign on “Multi-performance hysteretic rheological device”; for Biagio Carboni PhD thesis: Experimental setup: MTS testing machine

IIIE – Professional Consultants and Design Activities

Start	End	Client	Description
March 2019	April 2019	MB Service s.r.l., Via Flaminia 388, Rome, Italy	Highly specialized consultancy for the execution of non-standard loading tests on the reinforced concrete floor of the “Tangenziali Building” in Milan, Italy.
March 2018	May 2018	Mr. Francesco Giordano and Mr. Pasquale Pede, Strada Provinciale, Vinchiaturò (CB), Italy	Seismic Vulnerability Analysis and Project of Seismic Improvement of the masonry building (original construction about 1200) in Strada Provinciale, Vinchiaturò (CB), Italy

August 2018	September 2018	Municipality of Anguillara Sabazia (RM), Italy	Structural Feasibility Study for the superelevation of the cemetery of Anguillara Sabazia, (RM), Italy
June 2017	July 2017	Condominium, Via Panisperna 252, Rome, Italy	Seismic Vulnerability Analysis and Structural Monitoring of the masonry building (original construction about 1700) in Via Panisperna 252, Rome, Italy
May 2017	June 2017	Condominium, Via Dei Trisulti 8, Rome, Italy	Seismic Vulnerability Analysis of the masonry building (original construction about 1800) in Via Dei Trisulti 8, Rome, Italy
October 2017	June 2017	Caffeina Fundation, Via Garibaldi 34, Viterbo, Italy	Assessment of the static structural safety of the S. Leonardo Theatre (original construction about 1600), Via Cavour 9, Viterbo, Italy
July 2016	August 2016	Speranza Family	Structural Project of Seismic Retrofitting of a reinforced concrete building in Villammare, Vibonati (SA), Italy
July 2013	August 2013	Pontificio Collegio Armeno	Highly specialized scientific support to the project Seismic Vulnerability Analysis of the building EX-FINPAR Via Leonida Bissolati- Via san Nicola da Tolentino, Rome, Italy
November 2012	December 2012	Mr. Carlo Ambrosoli	Structural Project of a concrete single-family villa in Via Tronto 23, Ardea (RM), Italy
October 2012	November 2012	Medici senza Frontiere Italia, General Director Dr. Daniele Imminente.	Structural Project of a new steel stairs to be introduced in an existent building hosting the head quarter of "Medici Senza Frontiere Italia" Via Magenta 5, Roma.
April 2012	May 2012	Mr. Claudio Ventimiglia	Structural Project of a concrete single-family villa in Via Tronto 23, Ardea (RM), Italy

Part IV – Teaching experience

IVA– Official teaching assignments

Year	Institution	Lecture/Course
2019/2020	Sapienza University of Rome, Faculty of Civil and Industrial Engineering	Teaching appointment for the course of “Continuum Mechanics”; International Master’s degree in Engineering Nanotechnology (CFU 6)
2019/2020	Sapienza University of Rome, Faculty of Architecture	Teaching appointment for the course of “Comportamento Meccanico dei materiali”; Bachelor’s degree in Industrial Design (CFU 6)
2018/2019	Sapienza University of Rome, Faculty of Architecture	Teaching appointment for the course of “Comportamento Meccanico dei materiali”; Bachelor’s degree in Industrial Design (CFU 6)

IVB – Official tutoring assignments

Year	Institution	Lecture/Course
2017/2018	Sapienza University of Rome, Faculty of Civil and Industrial Engineering	Official Tutor for the course of Structural Mechanics (Prof. Walter Lacarbonara and Prof.. Paola Nardinocchi) to the Aerospace Bachelor’s degree
2011/2012	Sapienza University of Rome, Faculty of Civil and Industrial Engineering	Official Tutor for the course of Structural Mechanics (Prof. Walter Lacarbonara and Prof.. Paola Nardinocchi) to the Aerospace Bachelor’s degree

IVC – Teaching support activities

Year	Institution	Lecture/Course
from 2011 to today	Sapienza University of Rome, Faculty of Civil and Industrial Engineering	Teaching support to the course of Structural Mechanics (Prof. Walter Lacarbonara) to the Aerospace Bachelor’s course
from 2011 to today	Sapienza University of Rome, Faculty of Civil and Industrial Engineering	Teaching support to the course of Nonlinear Analysis of Structures (Prof. Walter Lacarbonara) to the Aerospace and Civil Master’s degrees

IVD – PhD Candidates Co-supervision

Year	Institution	Description
from November 2018 to today	Sapienza University of Rome, Department of Structural and Geotechnical Engineering	Co-supervisor of the PhD candidate Andrea Salvatore for the PhD program in Structural Engineering at Sapienza University of Rome
from November 2016 to today	Sapienza University of Rome, Department of Structural and Geotechnical Engineering	Co-supervisor of the PhD candidate Antonio Boccamazzo for the PhD program in Structural Engineering at Sapienza University of Rome
October 2016	Sapienza University of Rome, Department of Structural and Geotechnical Engineering, Materials and Structures Laboratory	Coordinator for the experimental activities performed by the visiting PhD candidate Sergio Sanchez Gomez of TU Delft, Netherlands

IVE – Master’s Students Co-supervision

Year	Institution	Description
from November 2019 to today	Sapienza University of Rome, Faculty of Civil and Industrial Engineering	Co-supervisor for the Master’s Thesis of Pranath Kumar Gourishetty (Master’s Degree Course in Aeronautical Engineering, Sapienza University of Rome)
from December 2019 to today	Sapienza University of Rome, Faculty of Civil and Industrial Engineering	Co-supervisor for the Master’s Thesis of Sawan Guruva (Master’s Degree Course in Aeronautical Engineering, Sapienza University of Rome)
from March 2019 to today	Sapienza University of Rome, Faculty of Civil and Industrial Engineering	Co-supervisor for the Master’s Thesis of Stefano Catarci (Master’s Degree Course in Aeronautical Engineering, Sapienza University of Rome)
from April to August 2018	Sapienza University of Rome, Faculty of Civil and Industrial Engineering	Co-supervisor for the Internship from INSA to Sapienza of the Master’s Student Constance Bebey (Master’s Degree Course in Civil Engineering and Urban Planning, INSA, Lyon, France)
September 2018	Sapienza University of Rome, Faculty of Civil and Industrial Engineering	Co-supervisor to the Final Report of the Course of “Nonlinear Analysis of Structure” (Prof. W. Lacarbonara) Master’s Student in Civil Engineering Marco Antonelli

from May 2015 to July 2016	Collaboration with TU Delft (Department of Precision and Microsystem Engineering) and Siemens S.p.A. (Wind Power and Renewables Department), Department of Structural and Geotechnical Engineering (Sapienza University of Rome)	Co-supervisor for the Master's Thesis of Jelte Van Til (TU Delft, Department of Precision and Microsystem Engineering; Supervisors: Prof. W. Lacarbonara, Prof. B. J. van der Steen, Dr. S. Voormeeren)
from November 2013 to July 2014	Collaboration with University of Pavia (Prof. F. Auricchio), Faculty of Engineering	Collaboration for the Master's Thesis of Dr. Valentina Mercuri (Supervisor: Prof. Ferdinando Auricchio; Co-supervisor: Eng. Mauro Ferraro)
from September 2013 to January 2014	Sapienza University of Rome, Faculty of Civil and Industrial Engineering	Co-supervisor for the Master's Thesis of Carlo Mancini (Master's Degree Course in Civil Engineering, Sapienza University of Rome)

IVF – Bachelor's Students Co-supervision

Year	Institution	Description
from September to December 2019	Sapienza University of Rome, Faculty of Civil and Industrial Engineering	Co-supervisor for the Bachelor's Thesis of Francesco Capocchiano (Bachelor's Degree Course in Aerospace Engineering, Sapienza University of Rome)
from September to December 2019	Sapienza University of Rome, Faculty of Civil and Industrial Engineering	Co-supervisor for the Bachelor's Thesis of Miriam Di Nicola (Bachelor's Degree Course in Aerospace Engineering, Sapienza University of Rome)
from September to December 2018	Sapienza University of Rome, Faculty of Civil and Industrial Engineering	Co-supervisor for the Bachelor's Thesis of Riccardo Colaruotolo (Bachelor's Degree Course in Aerospace Engineering, Sapienza University of Rome)
from July to December 2017	Sapienza University of Rome, Faculty of Civil and Industrial Engineering	Co-supervisor for the Bachelor's Thesis of Federico D'Amico (Bachelor's Degree Course in Aerospace Engineering, Sapienza University of Rome)

Part V - Society memberships, Awards and Honors

VA Society membership and awards

Year	Title
2018	Member of the Italian Association of Theoretical and Applied Mechanics (AIMETA)
2017	Member of the Italian Association of Theoretical and Applied Mechanics (AIMETA)
2015	Member of the American Association of Mechanical Engineering (ASME)
from June 8, 2011 to today	Member of the Order of Engineers of Potenza (Italy), with registration number 2693, section A
2009	Winner of the Scholarship for "Thesis Abroad" of the Faculty of Civil and Industrial Engineering, Sapienza University of Rome

VB Patents

Date	Title and authors
September 16, 2016	W. Lacarbonara, B. Carboni, "Tensairity structure with shape memory alloy", US15/756,585, EP16801320.9A, CN201680055349.2A
February 22, 2016	W. Lacarbonara, B. Carboni, "Multi-performance hysteretic rheological device", US15/548,89, EP16722955.8A, CN201680021923.2A

Part VI - Funding Information [grants as PI-principal investigator or I-investigator]

Year	Title	Program	Grant value
2019/2020	Vibration mitigation via advanced engineered devices and materials [Investigator]	Sapienza University big grant 2017 Prot. RG11916B8160BCCC	€ 39400
2017/2019	3D PRINTING: A BRIDGE TO THE FUTURE (3DP_Future) Computational methods, innovative applications, experimental validations of new materials and technologies [Investigator]	MIUR, PRIN 2017, Grant n. 2017L7X3CS_002	€

2017/2018	Modeling, analysis and experimental validation of shock absorbers based on highly dissipative materials [Investigator]	Sapienza University medium grant 2017, Prot. RM11715C817733FE	€ 9000
2016/2019	Highly reconfigurable multistable composites, with tunable global/local morphing capabilities [Investigator]	American Airforce (AFOSR) Grant FA9550-14-1-0082	€ 253000
2016/2017	Nonlinear Dynamics Toolbox for ropeway system, criteria design, vibration and passive control [Investigator and experimental activities coordinator]	POMA S.A., 109 rue Aristide Bergés, 38340 Voreppe, France	€ 50000
2016/2017	Nonlinear Normal Modes for damage identification: theoretical investigation and experimental validation [Principal Investigator]	Sapienza University starting grant 2016 Prot., AR216154FDD6BE6C	€ 2000
2015/2017	Laboratory for the advanced characterization of composite tissues [Investigator]	Regione Lazio, prot. FILAS-RU-2014-1058, LR 13/2008	€
2014/2017	Bridging high strength and dissipation in carbon nanotube composites [Investigator]	American Airforce-European Office of Aerospace research and Development Research Office (EOARD- AFOSR)	€ 208000
2013/2014	Stability and Control of Structures [Investigator]	Sapienza University medium grant 2013	€
2012/2014	Advanced Mechanical Model of innovative Materials and new Technologies for the solution to the European 2020 challenges [Investigator]	MIUR, PRIN 2010, Prot. 2010BFXRHS_002	€ 819000

Part VII – Research Activities

Keywords	Brief Description
Hysteresis	Theoretical and experimental studies on hysteretic behaviours provided by wire ropes (steel, SMA and other material), mechanical devices, structure and composites material (carbon-nanotube based).
Phenomenological modelling	Development of phenomenological models for the identification of experimentally obtained hysteretic behaviours.

Nonlinear Dynamics and Mechanics	Modelling geometric nonlinearity in structures for static and dynamic applications.
Vibrations control	Design and Development of mechanical devices for vibrations control purposes (vibration absorbers, TMDs, isolators, shock absorbers).
Identification	Identification of static and dynamical systems with parametric (model based) and nonparametric (neural network) methods.
Damage Detection	Study of the thermal effects on the dynamics of large-scale structures; modal curvatures for SHM; Nonlinear normal modes for SHM
Piezoelectricity	Development of piezo-elastic reduced order models to be employed for numerical and asymptotic methods in nonlinear dynamics
Carbon-nanotube composites	Nonlinear Dynamics experiments for the characterization of polymer-based carbon nanotube composites.

Rome, 11/01/2020

“ai fini della pubblicazione”