Francesco Graziotti

Curriculum Vitae

PERSONAL INFORMATION

Name	Francesco Graziotti
Place and Date of birth:	Padova, Italy – 04/04/1984
Nationality:	Italian
Place of Residence:	Pavia, Italy
Email:	francesco.graziotti@unipv.it

EDUCATION AND TRAINING

September 2010 – December 2013

Doctor of Philosophy in Earthquake Engineering and Engineering Seismology

Institution:	IUSS – University School for Advanced Studies, UME School, Pavia (IT)
Thesis title:	Contribution towards the displacement-based assessment of masonry structures
Contents:	Design, execution and reporting of full-scale testing campaign on stone masonry spandrels. Definition of a reliable single degree of freedom model for fast calculation of seismic demand of masonry structures. Application of the model in vulnerability studies and proposal of new displacement prediction formulations.
Supervisors:	G. Magenes, A. Penna
Relevant courses:	Seismic Analysis of Non-Structural Components (A. Filiatrault), Engineering Seismology (A. Papageorgiou), Earthquake Geotechnical Engineering (S. L. Kramer), Masonry Structures (G. Magenes, M. Griffith), Seismic Reliability Analysis of Structures (P. Pinto, P. Franchin), Dynamic Soil-Structure Interaction (E. Kausel).
Grade:	Excellent

September 2009 – September 2010

Master of Science in Structural Engineering

Institution:	Jacobs School of Engineering, University of California San Diego (USA)
Thesis title:	Seismic bridge response modification due to degradation of viscous dampers performance
Contents:	Numerical investigation analyzing the variation of the seismic response of a bridge in the case of degradation of installed viscous fluid dampers. The study was conducted with nonlinear time-history analyses of a detailed three-dimensional FE model of the Vincent Thomas Bridge in Los Angeles.
Supervisors:	P. B. Shing, C. M. Uang, F. Lanza di Scalea, G. Benzoni
Relevant courses:	Advanced Solid Mechanics (V. A. Lubarda), Matrix Structural Analysis (P.B. Shing), Composite Structures (H. Kim), Structural Dynamics (E. Luco), Earthquake Engineering (A. Elgamal), Displacement-based Seismic Design (J. Restrepo), Steel Structures (C. M. Uang), R.C. Structures (R. E. Englekirk), Non-destructive Structural Evaluation (F. Lanza di Scalea).
Grade:	3.94/4.00

October 2006 – December 2008

Master degree (Laurea Specialistica) in Civil Engineering

Institution:	University of Pavia (IT)
Thesis title:	Design of a laboratory setup for testing full-scale masonry spandrels
Contents:	Complete design of a test setup (from 2010 effectively used to test full-scale spandrel specimens).
Supervisors:	G. Magenes, A. Penna
Relevant courses:	Bi-dimensional Structures, Finite Elements, Risk Analysis, Structural Dynamics, Earthquake Engineering, Steel Structures, Masonry Structures, Bridges, Foundations, Snow and Avalanches.
Grade:	110/110 *cum laude*

October 2006 – December 2008

Bachelor degree (Laurea) in Civil Engineering

Institution:	University of Pavia (IT)
Thesis title:	First interpretation of full-scale cyclic tests on AAC masonry infills
Supervisors:	G. Magenes, A. Penna
Relevant courses:	Physics, Chemistry, Solid Mechanics, Hydraulics, Fundamentals of Steel Structures, R.C. Structures, Geotechnical Engineering, CAD, Economics.
Grade:	110/110 *cum laude*

RESEARCH EXPERIENCE

August 2023 – current

Associate professor at the Civil Engineering and Architecture Department - DICAr, University of Pavia (IT).

August 2021 – July 2024

Assistant professor (**Ricercatore a tempo determinato "B"** - art. 24 Legge 240/2010) at the Civil Engineering and Architecture Department - DICAr, University of Pavia (IT).

Development and validation of an innovative timber retrofit solution for unreinforced masonry buildings: conceptualization, design, and shake-table validation. Definition of design procedures and guidelines for its practical application. Studies on the environmental sustainability of the system. Development of simplified numerical models for rapid vulnerability assessment of masonry structures in the framework of a project aimed at developing a typology-based approach for out-of-plane wall assessment. Numerical and experimental studies to evaluate the seismic performance of non-structural components, such as display cases and museum installations, as well as innovative isolation devices. Studies on human-induced vibrations on museum artifacts. Tests executed to define the dynamic behavior of a timber altarpiece using laser vibrometers. Shake-table tests involving industrial steel racks isolated with innovative modular devices, as well as a shake table testing campaign on electrical cabinets. Participation to the work of the Italian Electrotechnical Committee (CEI) for the development of a guide for the correct design and installation of low-voltage systems and components in environments subject to seismic risk. Close collaboration with laboratories including TU Delft, University of Patras, and University of Trento, as well as firms and organizations such as Shell, TNO, Goppion, Julight, IEC, Kyneprox, and the Gallerie dell'Accademia of Venice.

January 2017 – July 2021

Assistant professor (**Ricercatore a tempo determinato "A"** - art. 24 Legge 240/2010) at the Civil Engineering and Architecture Department - DICAr, University of Pavia (IT).

Studies on the risk of gas extraction induced seismicity. Responsible for laboratory and *in-situ* testing campaigns: design, execution, data elaboration and reporting of 20+ full-scale shaking table tests (mono- and multi-directional) on unreinforced masonry buildings, on structural components and on sub assemblages; in-lab and *in-situ* material characterization and quasi-static tests. Development of simplified numerical models for fast vulnerability assessment of masonry structures (fragility functions) and studies of the seismic performances of structural and non-structural masonry components.

Numerical and experimental studies on the seismic performance of non-structural components (*e.g.* display cases and museum installations) and innovative isolation devices. Collaboration with international laboratories (*e.g.* TU Delft, TU Eindhoven, LNEC Lisbon) and international firms (*e.g.* ARUP, Shell, P&P, Goppion).

October 2014 – December 2016 — **Post-doctoral researcher (Assegnista di ricerca)** at the Civil Engineering and Architecture Department - DICAr, University of Pavia (IT).

Studies on the risk of gas extraction induced seismicity. Development of simplified numerical models for fast vulnerability assessment of masonry structures (fragility functions) and studies of the seismic performance of masonry components.

September 2013 – October 2014 — **Post-doctoral researcher (Assegnista di ricerca)** at IUSS – University School for Advanced Studies, Pavia (IT).

Studies on methodologies to assess the resilience of urban systems. Detailed study on the vulnerability of two strategic unreinforced masonry buildings in Sicily. *In-situ* testing, dynamic identification, macro-element modelling, dynamic analyses, definition of local and global limit states and vulnerability functions.

January 2009 – August 2009 — **Post-graduate researcher** at EUCENTRE, Pavia (IT).

Design and construction supervision of a laboratory test setup for masonry spandrels. Collaboration with the STEP project (Strategies and Tools for Early Post-Earthquake Assessment) for surveys of strategic structures after 2009 L'Aquila earthquake.

RESEARCH PROJECTS

2024-current — RELUIS Executive Project 2024-2026 WP13: Life cycle and sustainability of buildings and infrastructures. **Funding: € 27'500** - *UNIPV Principal Investigators: A. Penna,* ***F. Graziotti***

2023- current — Wandenaanpak Groningen, a typology-based approach for out-of-plane wall assessment.
Granted by: TNO - Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek, in collaboration with TU Delft.
Funding: € 200'000 - *Principal Investigator:* ***F. Graziotti***

2023-current — ERIES: Engineering Research Infrastructures for European Synergies. SUPREME, MDOF Shake-table testing campaign on gable walls subjected out-of-plane top and bottom differential motions.
Principal Investigator: F. Messali. Scientific responsible for the physical testing: ***F. Graziotti***

2023-current — ERIES: Engineering Research Infrastructures for European Synergies. STRONG, Testing campaign on sustainable timber retrofit of reinforced concrete buildings. At STRULAB – University of Patras.
Principal Investigator: I. Giongo. Role: Research Collaborator

2023-current — ERIES: Engineering Research Infrastructures for European Synergies. RESTORING, Testing campaign on stone masonry walls strengthened with CRM.
Principal Investigator: R. Bento. Role: Research Collaborator

2019- current — RELUIS Executive Project 2019-2021, 2021-2024, 2024-2026 WP4: Risk maps and seismic damage scenarios (MARS). **Funding: € 257'500** - *UNIPV Principal Investigators: A. Penna,* ***F. Graziotti***

2019- current — RELUIS Executive Project 2019-2021, 2021-2024, 2024-2026 WP10: Contribution towards code procedures for seismic assessment of existing URM structures. **Funding: € 77'500** - *UNIPV Principal Investigators: A. Penna,* ***F. Graziotti***

2019- 2024 — RELUIS Executive Project 2019-2021, 2021-2024 WP5: Integrated, low-impact and rapid retrofit intervention. **Funding: € 25'000** - *UNIPV Principal Investigators:* ***F. Graziotti,*** *A. Penna*

2018- 2021 — KYNEPROX Project: Numerical and feasibility study on an innovative seismic isolation system (Studio di fattibilità numerico e sperimentale su un sistema antisismico innovativo).
Principal Investigator: A. Penna. Role: Research Collaborator

2014 - 2020	NAM Project: "Study of the vulnerability of masonry buildings in Groningen". Responsible of the entire experimental campaign on URM structures (20+ shake table tests on full scale buildings and components) executed in EUCENTRE, Pavia and LNEC, Lisbon. Granted by: Nederlandse Aardolie Maatschappij BV. **Funding: € 10'808'500 -***Principal Investigator: R. Pinho.* *Scientific responsible for the physical testing:* ***F. Graziotti***
2019	GOPPION Project: Bidirectional shake-table test on fixed and isolated museum showcase (Test bidirezionale su tavola vibrante di vetrina museale con e senza isolamento sismico). **Funding: € 5'000** - *Principal Investigator:* ***F. Graziotti***
2018- 2019	MOBARTECH project: Development of a technological platform for the conservation and enhancement of historical-artistic assets. Bidirectional shaking table tests on museum installations. *Principal Investigators: R. Nascimbene and M. Rota.* *Scientific responsible for the physical testing:* ***F. Graziotti***
2019	Verification of equivalent-frame based software for the seismic assessment of masonry buildings according to annex G of NPR9998:2018. Research project in collaboration with TU Delft. **Funding: € 45'000** - *Principal Investigator:* ***F. Graziotti***
2018	Verification of equivalent-frame based software for the seismic assessment of masonry buildings according to annex G of NPR9998:2017. Research project in collaboration with TU Delft. **Funding: € 80'000** - *Principal Investigator:* ***F. Graziotti***
2015 - 2018	Research project on the assessment of the Seismic Response of Natural Stone Masonry Buildings in Basel, Co-PI of UNIPV, subcontracted by École Polytechnique Fédérale de Lausanne. *Principal Investigators: K. Beyer, G. Magenes, A. Penna. Role: Research Collaborator*
2014 - 2016	EUCENTRE Executive Project 2014-16: Topic C.2.1.2 – "Improvement of the seismic assessment of existing masonry buildings by improving structural analysis and assessment procedures". *Principal Investigators: G. Magenes, A. Penna. Role: Research Collaborator*
2014	RELUIS Executive Project 2014: Masonry Structures line. *Principal Investigators: C. Modena, G. Magenes, S. Lagomarsino. Role: Research Collaborator*
2014	MATILDA Project: "Multinational module on damage assessment and countermeasures", CE – FP7. *Principal Investigator: A. Pavese. Role: Research Collaborator*
2012 - 2014	PRISMA Project: "Piattaforme cloud interoperabili per smart-government", funded by Italian Ministry of University and Research. *Principal Investigator: A. Pavese. Role: Research Collaborator*
2011 - 2014	REAKT Project: "Strategies and tools for Real Time EArthquake RisK ReducTion". *Principal Investigator: P. Gasparini. Role: Research Collaborator*
2011 - 2013	EUCENTRE Executive Project 2012-2014: "Seismic vulnerability of masonry buildings". *Principal Investigator: G. Magenes. Role: Research Collaborator*
2011 - 2012	Bilateral project between Italy and Slovenia: "Protection of cultural heritage from earthquakes*"* in collaboration with the Engineering and Geodesy Faculty of the University of Ljubljana, Slovenia (funded by the Ministry of Foreign Affairs as a high relevance scientific cooperation project). *Principal Investigators: M. Dolsek, G. Magenes. Role: Research Collaborator*
2010 - 2013	DRHOUSE – Development of Rapid Highly-specialized Operative Units for Structural Evaluation (EC, GA 070405/2010/565717/SUB/C3) *Principal Investigator: A. Pavese. Role: Research Collaborator*
2009 - 2013	RELUIS Executive Project 2009-2013: Tools for the assessment and management of seismic risk of the existing building stock. "New aspects in the assessment of existing structures and retrofit interventions and evaluation of seismic risk of the existing building stock at the regional scale. Vulnerability assessment of masonry buildings, historical centres and cultural heritage". *Principal Investigators: C. Modena, G. Magenes, S. Lagomarsino. Role: Research Collaborator*

2009	EUCENTRE: Technical-scientific supporting activities for the emergency phase and the beginning of the reconstruction in the Abruzzo region hit by the earthquake – item 12, Ordinance 15th of April 2009 of the Presidency of the Council of Ministers.
2008 - 2011	EUCENTRE Executive Project 2008-2011: Research Programme e5/1 "Displacement-based methods for the seismic assessment of masonry buildings and possible implications for design". *Principal Investigator: G. Magenes. Role: Research Collaborator*
2006 - 2008	STEP Project: "Strategies and Tools for Early Post-earthquake assessment", CE – FP7. *Principal Investigator: A. Pavese. Role: Research Collaborator*
2005 - 2008	RELUIS Executive Project 2005-2008: "Assessment and reduction of the seismic vulnerability of masonry buildings". *Principal Investigators: C. Modena, G. Magenes, S. Lagomarsino. Role: Research Collaborator*

TEACHING EXPERIENCE

Lecturer or co-lecturer

October 2020 - current	**"Structural Engineering"** ("Tecnica delle Costruzioni"). Bachelor course (Laurea triennale in Ing. Civile) at University of Pavia, Italy. In Italian. 20 hrs (2 CFU).
February 2024 – June 2024	**"Seismic Assesment and Retrofit of Existing Structures"** ("Valutazione e rinforzo sismico delle stutture esistenti"). Master course (Laurea Magistrale in Ing. Civile) at University of Pavia, Italy. In Italian. 60 hrs (6 CFU).
October 2023 – January 2024	**"Seismic Design of Structures"** ("Progettazione sismica delle strutture"). Master course (Laurea Magistrale in Ing. Civile) at University of Pavia, Italy. In Italian. 30 hrs (3 CFU).
January 2023	**"Masonry Structures"**. Master course of Civil Engineering for Mitigation of Risk from Natural Hazard (ROSE programme) at University of Pavia and IUSS, Italy. In English. 10 hrs (1 CFU).
March 2020 – June 2023	**"Theory and Design of Steel Structures"** ("Teoria e progetto delle costruzioni in acciaio"). Master course (Laurea Magistrale in Ing. Civile) at University of Pavia, Italy. In Italian. 30 hrs (3 CFU).
March 2020 – June 2023	**"Structural Engineering Laboratory"** ("Laboratorio di tecnica delle costruzioni"). Master course (Laurea Magistrale in Ing. Edile/Architettura) at University of Pavia. In Italian. 30 hrs (1 CFU).
February 2017 – June 2019	**"Structural Engineering"** Master course at University of Pavia, Italy in the framework of the double degree in Building Engineering/Architecture with Tonji University, Shangai, China. In English. 60 hrs (3 CFU).

Teaching assistant

September 2011 – December 2016	Teaching assistant of **"Design of Structures"** ("Progetto di strutture", A. Penna). Bachelor's course (Laurea in Ing. Civile) at University of Pavia, Italy. In Italian.
March – April 2013	Teaching assistant of **"Seismic Design and Assessment of Masonry Structures"** (G. Magenes). M.Sc. course at UME School, IUSS, Pavia, Italy. In English.
April – June 2010	Teaching assistant of **"Design of Prestressed Concrete"** (P. B. Shing). B.Sc. course at University of California San Diego, USA. In English.
January – March 2010	Teaching assistant of **"Solid Mechanics"** (F. Lanza di Scalea). B.Sc. course at University of California San Diego, USA. In English
October 2005 – September 2009	Teaching assistant of **"Physics"** ("Fisica I" - A. Agnesi, G. Reali). B.Sc. course at University of Pavia, Italy. In Italian.

MASTERS, PHD AND POSTDOC TUTORING

From 2019, Faculty Board Member for the doctoral programme on Understanding and Managing Extremes (UME school) at the University School for Advanced Studies (IUSS) – Pavia, Italy.

Supervisor (and co-) of 30+ Master's theses (Lauree Magistrali) in Civil Engineering and Building Engineering/Architecture in the field of masonry buildings and experimental testing at University of Pavia and of 4 M.Sc. theses in Earthquake Engineering at IUSS, Pavia.

Supervisor (and co-) of 5 Ph.D. theses:

- "Seismic performance of framed retrofit solutions for unreinforced masonry buildings" N. Damiani, 2023, UME school, IUSS – Pavia, Italy;
- "An innovative timber retrofit for unreinforced masonry structures: impacts on seismic performance and preliminary considerations on environmental sustainability" M. Miglietta, 2022, UME school, IUSS – Pavia, Italy;
- "Investigations into the seismic out-of-plane two-way bending behaviour of unreinforced masonry walls" S. Sharma, 2020, UME school, IUSS – Pavia, Italy;
- "Tools and strategies for combined local and global seismic vulnerability assessment of URM structures" U. Tomassetti, Civil Engineering and Building/Architecture doctoral school of DICAr, 2018, University of Pavia, Italy;
- "Contributions to the seismic vulnerability assessment of unreinforced masonry buildings under induced seismicity" S. Kallioras, 2018, UME school, IUSS – Pavia, Italy.

Currently supervisor of two doctoral students at PhD program in Design, Modeling and Simulation in Engineering of the University of Pavia and ROSE school, IUSS – Pavia.
Responsible for 10 postdoctoral fellows since 2017.

ACADEMIC SERVICE

2021 - current, Member of the board of the Department of Civil Engineering and Architecture (DICAr) of University of Pavia.
2021 - current, Member of the steering committee of the Engineering Faculty of University of Pavia.
2021 - current, Responsible for the Structures and Materials Section of DICAr.

PEER REVIEW AND REFEREE ACTIVITIES

Peer reviewer for the following scientific journals:

- Engineering Structures;
- Earthquake Engineering and Engineering Vibration;
- Journal of Earthquake Engineering;
- International Journal of Structural Engineering;
- Earthquake Spectra;
- Journal of Structural Engineering;
- Construction and Building Materials;
- Materials and Structures;
- Bulletin of Earthquake Engineering;
- Structures;
- International Journal of Architectural Heritage.

Doctoral Examination Committee member for the University of Trento (2020, 2023) and the University of Auckland (2020).

External expert reviewer for a Postdoctoral fellowship application commissioned by ETH Zurich Research Commission for scientific evaluation (2018).

AWARDS AND ACHIEVEMENTS

- Best Paper Award (2nd place) of the 17th International Brick/Block Masonry Conference (17th IB²MaC 2020), July 5-8, 2020, Kraków, Poland with the manuscript: "An innovative timber system for the seismic retrofit of unreinforced brick masonry buildings" Damiani, N., Miglietta, M., Guerrini, G., Graziotti, F.

- Best Paper Award (1st place) of 13th North American Masonry Conference (13NAMC), June 16-19, 2019, Salt Lake City, USA with the manuscript: "Shake-Table Tests on a URM Building with Chimneys" Graziotti, F., Kallioras, S., Correia, A. A.

- Selection of the paper presented at the 10th International Masonry Conference, July 9-11, 2018, Milan, Italy for a special issue of the Bulletin of Earthquake Engineering. Final Paper "Experimental Seismic Performance of a Half-Scale Stone Masonry Building Aggregate" Senaldi, I., Guerrini, G., Comini, P., Graziotti, F., Magenes, G., Beyer, K., Penna, A. (DOI: 10.1007/s10518-019-00631-2).

- Selection of the paper presented at the 11th International Conference on Structural Analysis of Historical Constructions, September 2018, Cusco, Peru for a special issue of the International Journal of Architectural Heritage. Final Paper "Shake-table test of a strengthened stone masonry building aggregate with flexible diaphragms" Guerrini, G., Senaldi, I., Graziotti, F., Magenes, G., Beyer, K., Penna, A. (DOI: 10.1080/15583058.2019.1635661).

- "Key scientific article certificate" for the paper on Engineering Structures: "Detailed micro-modelling of the direct shear tests of brick masonry specimens: The role of dilatancy" Andreotti, G., Graziotti, F., Magenes, G., 2018, by "Advances In Engineering". Recognition of the studies on "The interdisciplinary role of dilatancy in the unifying approach for the interpretation of direct shear tests of masonry" https://advanceseng.com/interdisciplinary-dilatancy-interpretation-direct-shear-tests-masonry/.

FURTHER SCIENTIFIC, TEACHING AND CONSULTING EXPERIENCE

2017 - current	Consulting activities for structural dynamics and seismic risk prevention of museum installations. Client: Goppion S.p.A.
November 2023	Lecturer of Existing Masonry Buildings and Intervention Criteria, Professional development course for the Board of Engineers, Province of Pavia, Italy.
2020-2022	Participation to the work of the Italian Electrotechnical Committee (CEI) for the development of a guide for the correct design and installation of low-voltage systems and components in environments subject to seismic risk.
April 2021	Organizer of the 40-hour workshop on the Seismic Assessment of Existing Masonry Buildings using 3Muri and NPR9998-2018-2020: from Theory to Practical Applications, by Sismica360 S.r.l. and EconStruct, Leeuwarden, NL.
February - April 2020	Consulting for the development of a simple nonlinear computational tool to assess URM building retrofitted with innovative solutions. Client: Sismica360 S.r.l.
January 2020	Consulting for the interpretation of *in-situ* tests data on URM buildings in the Netherlands. Client: Arup.
2019 - 2020	Peer reviewer for two retrofit interventions on irregular URM buildings in Wellington (NZ) (volume of approx. 4'000+ m^3 and 12'000+ m^3) assessed by means of nonlinear time-history analyses according to NZSEE guidelines. Client: Wellington city council.
November 2019	Lecturer of Local Mechanism Analysis in Masonry Structures According to the 2018 Italian Building Code, Seminar for S.T.A. Data S.r.l. at Digital & BIM Italia fair, Bologna, Italy.
December 2018	Consulting on priorization of retrofit interventions on a building stock of more than 100 URM structures subjected to induced seismicity. Client: EconStruct B.V.
December 2016	Damage analysis and vulnerability assessment of a school complex (approx. 15'000 m^3) in Montalto delle Marche (AP, Italy), subjected to Central Italy 2016 earthquake events. Study conducted in the ReLUIS-project framework supporting the Italian Civil Protection and the Commissioner for Reconstruction.
2014 - 2016	Scientific assistance to various *in-situ* tests on URM houses in Groningen region (NL) and in Sicily (IT).

August – December 2016	Reconnaissance mission (10 weeks) in the areas hit by the seismic sequence of 2016 in Central Italy covering the most damaged centres. Post-earthquake usability surveys supporting the activities of the Department of Civil Protection on strategic structures.
May 2014	Lecturer of "Seismic performance of churches during recent Italian earthquakes" ("Il comportamento sismico delle chiese durante i recenti terremoti italiani"). Short course for professional engineers, Kore University, Enna, Italy. In Italian.
June 2013	Lecturer of "Damage reconnaissance survey and seismic vulnerability of buildings". Short course for professional engineers, EUCENTRE, Pavia, Italy. In Italian.
May – June 2012	Reconnaissance mission (4 weeks) in the areas hit by the seismic sequence of 2012 (main events on the 20th and 29th of May 2012, M 5.9 and 5.8, respectively), covering the most damaged centres in the provinces of Modena, Ferrara and Bologna and damage survey of masonry and historical buildings. Post-earthquake usability surveys supporting the activities of the Department of Civil Protection.
April 2009	Mission supporting the Department of Civil Protection for post-earthquake usability surveys: starting from the 7th of April 2009, survey teams working on the assessment of strategic structures (including the S. Salvatore hospital), public structures (*e.g.* schools) and structures hosting relevant production activities.
August 2006 – October 2006	Civil engineering internship: Collaboration with the Design department (enlargement of Tenaris-Campana plant oil pipes and field engineer at Caracoles earth dam construction). TECHINT Engineering and Construction S.A., Buenos Aires, (AR).

LANGUAGES

Mother tongue: Italian

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	C1	C1	C1
Spanish	C1	C1	B2	B2	A2

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

PARTICIPATION TO CONFERENCES

Chairman

2024	Session "Use of timber for the sustainable earthquake protection of existing buildings" of "18th WCEE – World Conference on Earthquake Engineering". June 30th – July 5th 2024, Milan, Italy.
2018	Session "Retrofitting and Strengthening" of "10th Australasian Masonry Conference". February 11th – 14th 2018, Sydney, Australia.

Invited speaker

2018	The Masonry Society 2017 Annual Meeting. Presentation: "Out-of-Plane Dynamic Collapse Tests of URM Walls" in the special session "TMS Research Masonry Giants, Session in honour of Professor Nigel Priestley". November 3rd – 7th, La Jolla, San Diego, California, USA.

Speaker

2023	9th COMPDYN - International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering. June 12th -14th, Athens, Greece.
2022	17th World Conference on Seismic Isolation. September 11th – 15th, Tourin, Italy.
2022	19th ANIDIS – Associazione Nazionale di Ingegneria Sismica. September 11th – 15th, Tourin, Italy.
2021	16th WCEE – World Conference on Earthquake Engineering. September 9th – 13th, Sendai, Japan.
2019	18th ANIDIS – Associazione Nazionale di Ingegneria Sismica. September 15th – 19th, Ascoli Piceno, Italy.
2019	13th North American Masonry Conference – 13NAMC. June 16th – 19th, Salt Lake City, Utah, USA.
2018	10th International Masonry Society Conference. July 9th – 11th, Milan, Italy.
2018	16th European Conference on Earthquake Engineering. June 18th – 21st, Thessaloniki, Greece.
2018	10th Australasian Masonry Conference. February 11th – 14th, Sydney, Australia.
2017	IF CRASC 17 – 4th Congress on Forensic Engineering and 6th Congress on Collapses, Reliability and Retrofit of Structures. September 14th – 16th, Milan, Italy.
2017	13th Canadian Masonry Symposium: 13th CMS. June 4th – 7th, Halifax, Canada.
2017	16th WCEE – World Conference on Earthquake Engineering. January 9th – 13th, Santiago, Chile.
2016	16th International Brick and Block Masonry Conference: IBMAC. June 26th – 30th, Padua, Italy.
2015	16th ANIDIS – Associazione Nazionale di Ingegneria Sismica. September 13th – 17th, L'Aquila, Italy.
2014	9th IMC – International Masonry Conference. July 7th – 9th, Guimarães, Portugal.
2013	Vienna Congress on Recent Advances in Earthquake Eng. and Structural Dyn.: VEESD2013. August 28th – 30th, Vienna, Austria.
2013	15th ANIDIS – Associazione Nazionale di Ingegneria Sismica. June 30th – July 4th, Padua, Italy.
2012	15th WCEE – World Conference on Earthquake Engineering. September 24th – 28th, Lisbon, Portugal.
2011	14th ANIDIS – Associazione Nazionale di Ingegneria Sismica. September 18th – 22nd, Bari, Italy.

Orcid ID: 0000-0002-0223-0139
Scopus indices: Documents by author - 60; Total citations - 1100 by 657 documents; *h*-index - 21.

Corresponding author

- **Journal Papers**

46. Giresini, L., **Graziotti, F.**, Guerrini, G. (2024). Multicriteria decision tools for selection of sustainable integrated retrofits: application to the seismic and energy upgrade of a masonry building. *Journal of Building Engineering*, 95, 110017. DOI: 10.1016/j.jobe.2024.110017

45. Kallioras, S., Correia, A. A., Candeias, P. X., Costa, A. C., **Graziotti, F.*** (2024). Dataset from the dynamic shake-table experiments on a full-scale unreinforced clay-brick masonry building with chimneys. *Data in Brief*, 52, 109813. DOI: 10.1016/j.dib.2023.109813

44. Guerrini, G., Damiani, N., Miglietta, M., **Graziotti, F.** (2024). Experimental validation of analytical equations for retrofitting masonry buildings with timber frames and boards. *Engineering Structures*, 300, 117124.. DOI: 10.1016/j.engstruct.2023.117124

43. Damiani, N., Guerrini, G., **Graziotti, F.** (2024). Design procedure for a timber-based seismic retrofit applied to masonry buildings. *Engineering Structures*, 301, 116991. DOI: 10.1016/j.engstruct.2023.116991

42. Damiani, N., DeJong, M. J., Albanesi, L., **Graziotti, F.**, Morandi, P. (2024). Parametric study on the in-plane performance of a steel frame retrofit solution for URM buildings using DEM. *Engineering Structures*, 302, 117293. DOI: 10.1016/j.engstruct.2023.117293

41. Damiani, N., Miglietta, M., Guerrini, G., **Graziotti, F.** (2023). Numerical assessment of the seismic performance of a timber retrofit solution for unreinforced masonry buildings. *International Journal of Architectural Heritage*, 17(1), 114-133. DOI: 10.1080/15583058.2022.2106461

40. Kallioras, S., **Graziotti, F.**, Penna, A., Magenes, G. (2022). Effects of vertical ground motions on the dynamic response of URM structures: Comparative shake-table tests. *Earthquake Engineering & Structural Dynamics*, 51(2), 347-368. DOI: 10.1002/eqe.3569

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