CHIARA CALDERINI

Curriculum Vitae

Personal data

Place and Date of Birth: Milan, May 7, 1975

Education

2004

PhD in Structural and Geotechnical Engineering, University of Genoa. Thesis: *A constitutive model for masonry: formulation and implementation for the analysis of complex structures*. Supervisor: Prof. Sergio Lagomarsino

2000

Master's Degree in Architecture, Polytechnic University of Turin, with final grade 110/110 cum laude and publication honors. Thesis: *The monuments of fear: culture and technique of reinforced concrete in the restoration of monuments in Italy (1900–1945)*. Supervisor: Prof. Vittorio Nascé.

1994

Classical High School Diploma, Liceo Vittorio Alfieri, Turin

Academic Position

2026-present

Full Professor of Structural Engineering, University of Genoa

2016-2025

Associate Professor of Structural Engineering, University of Genoa

2010-2016

Lecturer in Structural Engineering, University of Genoa

Prizes

2004

International Award 'Edoardo Benvenuto', granted by the 'Edoardo Benvenuto Association' (for the PhD Thesis).

2000

'Optime' Award from the 'Industrial Union of Turin' for the best graduates of the City of Turin in the academic year 1999/2000

RESEARCH

Research topics

Safety of monumental buildings exposed to hydrogeological risk

Safety of monumental buildings exposed to seismic risk

Static and dynamic response of masonry vaulted structures

Mechanical characterization of historic iron tie-rods

Life cycle analysis and sustainability of structures

Recent scientific collaborations

On the topic of 'Deformation analysis of historical structures through digital surveys': University of Oxford (UK) – Sinan Acikgoz. This recent collaboration was carried out through co-supervision of a PhD thesis on the subject.

On the topic of 'Use of reinforced concrete in the strengthening of historical monuments': Marmara University (Turkey) – Prof. Z. Inan Ocak. Prof. Inan Ocak is currently a Visiting Professor at DICCA, funded by the University and supported by a grant from the Scientific and Technological Research Council of Türkiye (TUBITAK).

On the topic of 'Safety of monumental buildings exposed to hydrogeological risk': University of Genoa (C. Battini and R. Berardi – DICCA, R. Vecchiattini – DAD); University of Naples 'Federico II' (R. Landolfo, F. Portioli, L. Cascini); TU Delft, Netherlands (G. Giardina); Universitat Politècnica de Catalunya, Spain (P. Roca).

On the topic of 'Safety of monumental buildings exposed to seismic risk': University of Genoa (S. Lagomarsino – DICCA); University of Campania 'Luigi Vanvitelli' (G. De Matteis); University of Padua (F. Da Porto); University of Naples 'Federico II' (R. Sisti); Italian Civil Protection Department (E. Speranza); EUCENTRE.

On the topic of 'Static and dynamic response of masonry vaulted structures': Polytechnic University of Turin (A. Monaco, F. Venuti, M. Alforno); University of Naples 'Federico II' (F. Portioli, L. Cascini); University of Minho, Portugal (P.B. Lourenço, N. Mendes); National Laboratory for Civil Engineering (LNEC) – Department of Structures, Portugal (P. Candeias, A. Campos Costa).

On the topic of 'Mechanical characterization of historic iron tie-rods': University of Genoa (P. Piccardo – DCCI, C. Battini – DICCA, R. Vecchiattini – DAD); CNRS, France (P. Dillmann); Polytechnic University of Turin (P. Matteis).

On the topic of 'Life cycle analysis and sustainability of structures': University of Genoa (A. Giachetta – DAD); University of Naples 'Federico II' (R. Landolfo, M. D'Aniello); Catholic University of America, Washington D.C., USA (B. Guy).

Scientific responsibility for research projects

2023-present

Principal Investigator of the project ‘REVAULTs - Response Evaluation of masonry VAULTs under pseudo-dynamic loadings’, in collaboration with University of Minho, Kerakoll, EU, ERIES Project, INFRA-2021-SERV-01-07: Research infrastructure services, Transnational Access.

2021-present

Participation, with scientific responsibility for one of the Research Units of the University of Genoa, in Agreement No. 36 dated 23/06/2021 between ReLUIS and the Department of Civil, Chemical and Environmental Engineering of the University of Genoa, within the framework of the Technical Implementation Agreement pursuant to Article 15 of Law No. 241 of August 7, 1990, between the Superior Council of Public Works and the ReLUIS Consortium – ‘Bridge Guidelines’.

2021-2024

Scientific Coordinator, with F. Da Porto (University of Padua), of Task 4.8 ‘Models and fragility curves of churches’ within WP4: Risk Maps and Seismic Damage Scenarios (MARS) of the Executive Project Agreement DPC/ReLUIS 2019–2021, ReLUIS.

2019-2021

Scientific Coordinator, with G. De Matteis (University of Campania ‘Luigi Vanvitelli’), of Task 4.8 ‘Models and fragility curves of churches’ within WP4: Risk Maps and Seismic Damage Scenarios (MARS) of the Executive Project Agreement DPC/ReLUIS 2019–2021, ReLUIS.

2018-2021

Scientific Coordinator (PI) of the project ‘Seismic Response of Masonry Cross Vaults: shake table tests and numerical validations’, European Commission, H2020-EU.1.4.1.2 – Integrating and opening existing national and regional research infrastructures of European interest, INFRAIA-01-2016-2017 – Integrating Activities for Advanced Communities, Seismology and Earthquake Engineering Research Infrastructure Alliance for Europe (SERA), hosted at LNEC – National Laboratory for Civil Engineering, Lisbon, Portugal.

2019-2021

Scientific Coordinator of the CHAINS project ‘Non-destructive diagnostics of historic iron tie-rods for the safe conservation of monumental buildings’, Liguria Region (in collaboration with the Italian Welding Institute), POR FSE Liguria 2014–2020, ACTION LINE 1 – Standard research plans, funded under Axis 3 ‘Education and Training’, Regional Resolution No. 422 dated June 13, 2018.

2017-2020

Scientific Coordinator of the Research Unit of the University of Genoa for the project ‘Protecting the Cultural Heritage from water-soil interaction related threats’, MIUR, PRIN 2015 (Prot. 2015EAM9S5).

2017-2018

Scientific Coordinator of the Research Unit UNIGE(b) of the Executive Project Agreement DPC/ReLUIS 2017–2018 – AQ DPC/ReLUIS 2014–2018. Research lines: ‘Masonry constructions’ (WP3.3 Repairability of buildings damaged by earthquakes and intervention strategies based on resilience) and ‘Steel and steel-concrete composite structures’ (Task 3.4 Improvement and retrofitting of other existing construction types based on the use of steel).

2010-2012

Member of the Research Unit of the University of Genoa (Coordinator: S. Lagomarsino) and Scientific Coordinator of WP5 ‘Models for the seismic analysis and the design of interventions’ of the European project ‘Performance-based approach to earthquake protection of cultural heritage in European and Mediterranean countries’ – PERPETUATE, European Commission, FP7–Theme ENV.2009.3.2.1.1–2010–2012 – Grant agreement no.: 244229.

Scientific responsibility for research contracts

2025-2026

Principal Investigator of the Research Agreement on ‘Modeling and seismic safety assessment of the Doria Fieschi Malaspina Castle in Santo Stefano d’Aveto (GE)’, Superintendence of Archaeology, Fine Arts and Landscape for Liguria.

2024-present

Principal Investigator of the third-party contract ‘Execution of tests on reduced-scale vault models’, Polytechnic University of Turin, Department of Architecture and Design.

2024-2027

Principal Investigator of the Framework Agreement for ‘Research, development and innovation activities’ and for ‘Teaching, advanced training and continuing education activities’, in the field of Structural Engineering, with particular focus on ‘Analysis of the structural behavior of historic masonry buildings and design of structural rehabilitation interventions’, Polytechnic University of Turin, Department of Architecture and Design.

2023

Principal Investigator, with Carlo Battini, of the Research Agreement on the ‘Mausoleum of the writer Umberto Fracchia’ in Bargone, Casarza Ligure (GE), aimed at an in-depth technical-scientific investigation of the asset’s condition, Regional Secretariat of the Ministry of Culture (MiC) for Liguria.

2022-2023

Principal Investigator, with Anna Boato (DAD), of the Research Agreement on ‘In-depth study of the history, construction phases, materials, damages, and structural and seismic behavior of the Doria Malaspina Castle in Calice al Cornoviglio’, Superintendence of Archaeology, Fine Arts and Landscape for the Metropolitan City of Genoa and the Province of La Spezia.

2022-2023

Principal Investigator, with Stefano Podestà, of the Research Agreement on ‘Analysis of possible solutions regarding the reopening to vehicular and pedestrian traffic of Via XXV Aprile, in the section facing the entire complex of the former SAVAM area’, Municipality of Altare, Superintendence of Archaeology, Fine Arts and Landscape for the Provinces of Imperia and Savona, Province of Savona.

2022-present

Principal Investigator, with Carlo Battini and Jan Pralits, of the Framework Agreement for Scientific Collaboration on ‘Studies and research related to the activities carried out by the Carlo Felice Theater Foundation for the management of the theater’s construction’, Carlo Felice Theater Foundation, Genoa.

2022-2025

Principal Investigator of the Framework Agreement for Collaboration between the Building Development Area (ASE) and the Department of Civil, Chemical and Environmental Engineering (DICCA) of the University of Genoa regarding technical-scientific support for the management of development and recovery interventions of existing infrastructures.

2022-2024

Principal Investigator, with Carlo Battini and Giuseppe Riotto, of the Implementation Agreement for Collaboration between the Building Development Area (ASE) and the Department of Civil, Chemical and Environmental Engineering (DICCA) of the University of Genoa on 'Study on the structural and seismic safety of the buildings at Via Pastore 1 and Via G. B. Alberti 4 in the S. Martino complex in Genoa'.

2022-2024

Principal Investigator of the Implementation Agreement for Collaboration between the Building Development Area (ASE) and the Department of Civil, Chemical and Environmental Engineering (DICCA) of the University of Genoa on 'Analysis and experimental tests on two university buildings: Palazzo Rebuffo Serra (Piazza Santa Sabina 2) and Via Balbi 4'.

2021-2023

Principal Investigator, with Rita Vecchiattini (DAD), of the Research Agreement 'Knowledge of materials, degradation, structural and seismic behavior of the church of the Abbey of San Giuliano in Genoa and annexed premises', Regional Secretariat for Liguria of the Ministry of Culture.

2021-2023

Principal Investigator, with Giuseppe Riotto, of the Research Contract 'Experimental verification of the effectiveness of textile-based reinforcement combined with thermal insulation panels in strengthening stone-masonry walls', European Commission – Joint Research Centre (Ispra).

2019-2022

Principal Investigator, with Rita Vecchiattini and Carlo Battini, of the Research Agreement 'Study of the bell towers of Santa Maria delle Vigne and San Siro in Genoa aimed at assessing their structural safety and defining restoration and strengthening interventions', Regional Secretariat for Liguria of the Ministry of Culture.

2019-2020

Principal Investigator, with R. Vecchiattini, of the Research Agreement 'Structural analysis aimed at drafting the technical and economic feasibility project for the former Franciscan convent in Vernazza', Regional Secretariat of the Ministry of Cultural Heritage and Activities (MiBAC) for Liguria.

2019

Principal Investigator of the Research Agreement 'Didactic and applied research activity on the structural behavior and rehabilitation of historic masonry buildings' within the Twinning Contract MD 13 ENPI OT 01 16 (MD/26), No. 2017/387-025 'Support to promote cultural heritage in the Republic of Moldova through its preservation and protection', Confservizi CISPEL Toscana

2017-2019

Principal Investigator of the Research Agreement 'Seismic safety assessment (with knowledge level LC2) of the school complex 'Ugo Foscolo' in Vignole Borbera', Municipality of Vignole Borbera.

2017

Principal Investigator of the Research Agreement ‘Environmental life cycle assessment of NPS products and comparison with traditional structural types’, Tecnostrutture s.r.l.

2014-2015

Principal Investigator, with A. Magliocco (DAD), of the Research Agreement ‘Seismic vulnerability assessment of the INPS office building in Sestri Ponente (Genoa), and evaluation of the structural impacts of architectural/plant interventions aimed at reducing energy consumption and promoting sustainable environmental development’, INPS – Regional Office of Liguria.

2011-2016

Principal Investigator of the third-party contract ‘Deformometric monitoring of the church of S. Nicolò di Capodimonte in S. Rocco di Camogli (2011–2016)’ – Third-party service of the Materials and Structures Laboratory, Parish of San Rocco di Camogli.

Editorial activities

2023-2024

Guest Editor, with N. Bianchini, P. Candeias, P.B. Lourenço, N. Mendes, of the Special Issue ‘Seismic Response of Masonry Cross Vaults: Shaking table testing and numerical validation’, *International Journal of Architectural Heritage*, Volume 18, Issue 12 (2024)

2019-present

Member of the Editorial Board of the *International Journal of Architectural Heritage.*

2022-present

Member of the Editorial Board of the journal *Frontiers in the built environment*.

2015-2019

Member of the Editorial Board of the journal *International Journal of Masonry Research and Innovation.*

2017-2018

Guest Editor, with Philippe Dillmann (Director of Research at the Institut de recherche sur les archéomatériaux, CNRS – France), of the Special Issue ‘Historic metal tie-rods’ of the *International Journal of Architectural Heritage*, 13(3), 2018.

2004

Guest Editor, with Michele Bonino (Polytechnic University of Turin), of the special issue ‘Modern Movements: Architecture and Earthquake 1883–2004’, of the journal *Parametro – International Journal of Architecture and Urban Planning*, No. 251, 2004, Faenza, Bologna.

2002-2013

Correspondent for the *Giornale dell’Architettura* and the *Giornale dell’Arte*, for which she wrote more than 30 popular articles.

Regularly performs peer review activities for the following international journals: *Engineering Structures, Bulletin of Earthquake Engineering, Construction and Building Materials, International Journal of Architectural Heritage, Earthquake Engineering and Structural Dynamics, Journal of Structural Engineering, Sustainability, International Journal of Masonry Research and Innovation.*

Technology transfer activities

2016-present

Holder of the Italian Patent 'Beam-column joint', no. 102016000125768, University of Genoa, with M. Pongiglione, M. D'Aniello and R. Landolfo, 2016.

Steel beam-column joint for seismic-resistant frame buildings. Thanks to the use of friction connections, the joint is dissipative, demountable and free of welds/holes on beams and columns. The energy dissipation reduces repair costs, while demountability and absence of welds/holes allow for reuse of structural elements.

Organization of Seminars, Symposia and Special Sessions

2025

Organizer and speaker of the ISCARSAH Webinar 'Heritage in Time of Armed Conflict', with Muneer Elbaz (Palestine) and Viktor Dvornikoff (Ukraine), April 23, 2025.

2023

Organizer (and Chair), with E. Piccoli, of the Thematic Session 'Historical vaulted structures: geometries and geometrical variations over time', within the 'Italian Workshop on Shell and Spatial Structures', Turin, June 26–28, 2023.

2023

Organizer (and Chair), with P.B. Lourenço, Nuno Mendes, Nicoletta Bianchini (University of Minho) and Paulo Candeias (Laboratório Nacional de Engenharia Civil - Portugal) of the Mini symposium MS-49 'Seismic Response of Masonry Cross Vaults: Shaking table tests and numerical validations' within the '9th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN), Athens, June 14–18, 2023.

2022

Organizer, with Alessia Monaco, Fiammetta Venuti and Marco Alforno (Polytechnic University of Turin) of the special session 'Advances in structural analysis, safety assessment and strengthening of masonry vaulted structures' within the XIX Conference of the 'Italian National Association of Earthquake Engineering' (ANIDIS) and the XVII Conference of the 'Anti-Seismic Systems International Society' (ASSISi), Turin, September 11–15, 2022.

2022

'Structural response of arched masonry structures: experimental and numerical experiences', invited seminar held within the 7th International Webinar and 6th TAFTASH (Consortium of Top Iranian Comprehensive Universities), April 26, 2022, Faculty of Civil Engineering and Transportation, University of Isfahan, Iran

2020

Organizer of the Mini symposium ‘Modelling of historical masonry structures under extreme events: earthquakes, impacts and soil movements’ (with M. Godio, M. Malena and F. Portioli), within the 14th World Congress in Computational Mechanics and ECCOMAS Congress 2020, Paris (France), July 19–24, 2020.

2021

‘The issue of 'safety': responsibility, protection and management of buildings in historic centers’. Seminar held within the interdisciplinary Webinar ‘Legislation for historic centers’, University of Genoa, Department of Law, October 27, 2021.

2019

‘Protection of cultural heritage from landslide risk’. Seminar held at the Regional Secretariat of the Ministry of Culture for Liguria, with Rita Vecchiattini, May 7, 2019.

2016

‘Modeling and experimentation of masonry arches and vaults’, seminar held at the University of Genoa on February 18, 2016, in collaboration with Francesco Portioli and Lucrezia Cascini (University of Naples Federico II) and Michela Rossi.

2015

‘Structural sustainability: an introduction’, seminar held at the Catholic University of America, Washington (US), February 16, 2015.

2009

‘Use of Reinforced Concrete in Preservation of Historic Buildings: Conceptions and Misconceptions in the Early 20th Century’, seminar held at the University of Minho, Guimarães (Portugal), October 29, 2009.

2006

‘Non-linear modelling of historical masonry structures’, seminar held at the Indian Institute of Technology in Kanpur (India), November 9, 2006.

Participation in Institutions, International Organizations and Scientific Committees

2024-present

Expert Member of ISCARSAH (International Scientific Committee on the Analysis and Restoration of Structures of Architectural Heritage), Technical Committee for the structural analysis and consolidation of architectural heritage of the International Council on Monuments and Sites (ICOMOS).

2024-present

Associate Member of the 'Construction History Group' of the Polytechnic University of Turin.

2024

Member of the 'Earthquake and Structural Analysis Scientific Committee' of the 3rd International Conference on Construction Engineering (ICCE 2024), Higher Institute of Earthquake Studies and Research (HIESR) – Syria, Damascus, 3–5 December 2024

2022

Member of the Scientific Committee of the International Conference on Construction Engineering: Towards more Sustainable Structures (ICCE 2022), November 2022, Higher Institute of Earthquake Studies and Research (HIESR) – Syria.

TEACHING

Teaching Activities in Master’s and Bachelor’s Courses at the University of Genoa

2021-present

Lecturer of the course ‘Steel and Steel-Concrete Composite Structures’, Master’s Degree in Civil Engineering.

2025-present

Lecturer of the course ‘Structural and Geotechnical Design Laboratory’, Master’s Degree in Building Engineering

2018-today

Lecturer of the course ‘Structural Rehabilitation Workshop’, Master’s Degree in Engineering for Building Retrofitting, later Building Engineering.

2019-present

Lecturer of the University Citizenship Education Module on Sustainability, University of Genoa, ‘Sustainability in Civil Engineering’.

Teaching Activities at the Higher Institute of Studies of the University of Genoa

2016

Coordinator of the course ‘Sustainable Civil Engineering’ within the Master's program in Engineering and Architecture for Sustainability (seminar organization)

2014

Coordinator of the course ‘Environmental Design and Management’ within the Master's program in Engineering and Architecture for Sustainability (seminar organization)

Teaching Activities at Foreign Universities

2022

Coordinator, with Peter Ireman, of the course Advanced Structural Design within the International Semester ‘Advanced integrated design project for sustainable building using BIM’, Ecole Supérieure d’Ingénieurs des Travaux de la Construction, Caen (France).

2022

Lecturer of the module Numerical modelling and design of RC and masonry structures for seismic actions, within the course Advanced Structural Design, International Semester ‘Advanced integrated design project for sustainable building using BIM’, Ecole Supérieure d’Ingénieurs des Travaux de la Construction, Caen (France).

2017

Supervisor, with P. Lourenço, of the thesis ‘2016 Central Italy Earthquake: Seismic Assessment of 'Pietro Capuzi' School in Visso (Marche)’, Chiara Ferrero, Advanced Master in Structural Analysis of Monuments and Historical Constructions (SAHC).

2009

‘Ancient rules and classical approaches for the structural analysis of historical constructions’, module of the Advanced Masters in Structural Analysis of Monuments and Historical Constructions (SAHC).

Thesis supervision

Supervisor of more than 50 Master’s Degree Theses

Co-supervisor of more than 60 Bachelor’s and Master’s Degree Theses

Thesis Awards

2019

‘Thesis Award 2017/2019’ from CTA (Collegio dei Tecnici dell'Acciaio/’Costruzioni Metalliche’) for the thesis ‘Economic and environmental effects of circular and resilient design strategies on the life cycle of a single-storey steel building’ by Silvia Vela, supported by a scholarship from D’Appolonia.

2017

‘VIII National ARCo Conference Award - Good restoration interventions: conservation, adaptation, reuse’, 2nd place ex-aequo, for the thesis ‘The bell tower of Santa Maria delle Vigne in Genoa: knowledge and structural analysis aimed at drafting a restoration and accessibility project’ by Beatrice Di Napoli.

2013

‘Thesis Award 2012/2013’, ACAI (Association of Italian Steel Constructors) / journal ‘Costruzioni Metalliche’: first prize (best thesis on the use of steel in the realization of ‘bioarchitecture solutions’), ‘AAA Talenti Cercasi’ Graduation Award 2012/13, Accenture Alumni Association: first prize (best thesis on the topic ‘Renewable energy and sustainability’), ‘Nicoletta GAIS’ Graduation Award (a.y. 2012/2013), Polytechnic School of the University of Genoa, for the thesis ‘The reuse of steel structural elements between architectural design and environmental sustainability’ by Margherita Pongiglione.

Courses in Postgraduate Schools

2024-present

Lecturer of the course 'Modeling and seismic analysis of monumental buildings', Postgraduate School in Architectural and Landscape Heritage.

2021-present

Lecturer of the course 'Assessment, strengthening and seismic upgrading', Postgraduate School in Architectural and Landscape Heritage.

PhD Courses

2018

‘Structural, geotechnical and seismic investigations and analysis of architectural heritage’, PhD School in Architectural and Landscape Heritage, Polytechnic University of Turin

2018

Organizer of the Excellence PhD Course on ‘Ferrocement: Analysis, Design and Conservation’, Polytechnic University of Turin, Department of Structural and Geotechnical Engineering, PhD in Architectural and Landscape Heritage, May 2–11, 2018, with Prof. Rosario Ceravolo (coord.), Prof. Mario A. Chiorino, Dr. Erica Lenticchia.

2016

‘Ductile Seismic Design of Steel Structures’, PhD School in Civil, Chemical and Environmental Engineering, University of Genoa

2010

‘Modeling and analysis of existing masonry structures’ (with S. Lagomarsino, S. Cattari and S. Podestà), PhD School in Civil, Chemical and Environmental Engineering, University of Genoa.

PhD Thesis Supervision

2023-present

‘Development of systems for predictive maintenance of infrastructures based on the use of BIM, digital twin and artificial intelligence’, Arash Kosari, PhD in Civil, Chemical and Environmental Engineering, Curriculum in Structural, Geotechnical and Materials Engineering, University of Genoa, 38th cycle, industrial PhD DM 117, industrial partner: Italian Institute of Welding (contact: Michelangelo Mortello).

2023- present

‘Seismic behaviour of masonry vaults in heritage buildings: experimental evaluation and numerical modelling of structural and non-structural damage’, Chiara Cirabisi, PhD in Civil, Chemical and Environmental Engineering, Curriculum in Structural, Geotechnical and Materials Engineering, University of Genoa, 38th cycle.

2021-2025

‘Deformation analysis as a tool for the structural assessment of historical buildings: from geometrical survey to damage identification’, Giulio Lucio Sacco, PhD in Civil, Chemical and Environmental Engineering, Curriculum in Structural, Geotechnical and Materials Engineering, University of Genoa, 37th cycle (with C. Battini).

2018-2021

‘Micro-scale effects on the macroscopic mechanical behavior of complex masonry vaults’, Marco Alforno, PhD in Architectural and Landscape Heritage, Polytechnic University of Turin, 33rd cycle.

2017-2020

‘Experimental and numerical analysis on the structural analysis of masonry arches and vaults subjected to soil movements’, Chiara Ferrero, PhD in Civil, Chemical and Environmental Engineering, Curriculum in Structural, Geotechnical and Materials Engineering, University of Genoa, 33rd cycle, joint supervision with Universitat Politècnica de Catalunya (co-supervisor: P. Roca).

2013-2016

‘Steel Structure Sustainability: A New Reversible Seismic-Resistant Joint’, Margherita Pongiglione, PhD in Structural and Geotechnical Engineering, University of Genoa, 28th cycle.

2011-2015

‘Seismic response of masonry vaulted structures: experimental tests and numerical analyses’, Michela Rossi, PhD in Structural and Geotechnical Engineering, University of Genoa, 26th cycle (with S. Lagomarsino).

PhD thesis awards

2023

The PhD thesis by Chiara Ferrero titled ‘Experimental and numerical analysis on the structural analysis of masonry arches and vaults subjected to soil movements’, University of Genoa, 33rd cycle, in joint supervision with Universitat Politècnica de Catalunya (co-supervisor: P. Roca), received the international award ‘2023 Outstanding PhD Dissertation Award’ from ‘The Masonry Society’ (TMS).

International Agreements for Teaching

2024-present

Member of the University of Genoa working group for the TNE project funded under Mission 4 ‘Education and Research’ - Component 1 ‘Enhancement of educational services: from nurseries to universities’ - Investment 3.4 ‘University teaching and advanced skills’, sub-investment T4 ‘Transnational Initiatives in Education’, funded by the European Union – NextGenerationEU of the PNRR, Proposal number TNE23-00074.

2024-present

Academic representative for the ‘Inter-institutional agreement 2024–2027’ between the University of Genoa and the University of Isfahan (Iran), funded under Call 2024-1-IT02-KA171-HED-000221451, KA171, ERASMUS+ Mobility of higher education students and staff supported by external policy fund.

2022-2024

Member of the University of Genoa working group for the BEST project (Bio-based Energy-efficient materials and Structures for Tomorrow), funded under Call HORIZON-MSCA-2021-SE-01, action HORIZON-TMA-MSCA-SE, Proposal number: 101086440.

2019-2023

Academic representative for the ‘Inter-institutional agreement 2020–2023’ between the University of Genoa and the Technical University of Moldova, funded under Call 2019-1-IT02-KA107-061390, Erasmus+, KA107, Higher education student and staff mobility between Programme and Partner Countries.

2020-present

Academic representative for the Double Degree agreement between the University of Genoa and Voronezh State Technical University (Russia).

2023-present

Academic representative for the bilateral agreement between the University of Genoa and the University of Minho within the Erasmus+ project, Key Action 1, Learning Mobility for Higher Education Students and Staff among EU Member States and third countries associated to the Programme.

2021- present

Academic representative for the bilateral agreement between the University of Genoa and the Universitat Politècnica de Catalunya (UPC) within the Erasmus+ project, Key Action 1, Learning Mobility for Higher Education Students and Staff among EU Member States and third countries associated to the Programme.

MANAGEMENT, ORGANIZATIONAL AND SERVICE ACTIVITIES

Coordination Activities and Participation in Institutional Bodies

2024-present

Member of GEV 8b for the VQR 2020–2024

2025-present

Coordinator of the *Teaching Committee* of the Department of Civil, Chemical and Environmental Engineering (DICCA) at the University of Genoa

2024-2025

Coordinator of the Master's Degree Program in 'Building Engineering' at the University of Genoa

2022-2024

Scientific Coordinator of the 'Structures and Geotechnics Laboratory' at the Department of Civil, Chemical and Environmental Engineering (DICCA), University of Genoa

2021-2024

Member of the 'Council of the Polytechnic School', University of Genoa

2018-2024

Coordinator of the Master's Degree Program in 'Engineering for Building Retrofitting' at the University of Genoa

2020-present

Member of the 'Teaching Committee' of the Department of Civil, Chemical and Environmental Engineering (DICCA), University of Genoa

2022-present

Member of the Academic Board of the 'PhD Program in Civil, Chemical and Environmental Engineering', University of Genoa

2018-2022

Member of the Academic Board of the PhD Program in 'Architectural and Landscape Heritage', Polytechnic University of Turin

2018-2019

Coordinator of the Curriculum in 'Science and Technology for Sustainability' at the Higher Institute of Studies of the University of Genoa (ISSUGE – IANUA)

Evaluation Activities for Research Projects

2025

Evaluator of PhD candidates for the project ‘REhabilitation of European Vaulted Masonry Structures for ARChitectural Heritage Preservation (REVARCH)’, within the Horizon Europe Marie Skłodowska Curie programme CHORAL (Cultural Heritage Outreach in Romance Languages).

2024

Independent Evaluator for the ‘Cyprus Research and Innovation Foundation’ (RIF) under the funding programme ‘RESTART 2016-2020’ for Research, Technological Development and Innovation, programme ‘Excellence Hubs’, call EXCELLENCE/0524.

2022

Evaluator, on behalf of the University of Florence, of projects submitted under the ‘University Call for the funding of competitive research projects lasting 30 months within the themes of the PNR 2021-2027’.

2021

External Reviewer for the VQR 2015-19.

2021

Expert Evaluator, on behalf of the European Commission (European Commission – Research Executive Agency - REA), under the Call HORIZON-WIDERA-2021-ACCESS-02 (contract number CT-EX2013D162262-103).

2021

Evaluator, on behalf of MIUR, of research projects submitted in area 08 (Civil Engineering and Architecture) under the PRIN 2020 call - Projects of Relevant National Interest (Directorate Decree n.1628 of 16-10-2020).

2019-present

Evaluation and ongoing monitoring, on behalf of MIUR, of the project ARS01_00914 titled ‘Sustainable design of intelligent furnishing systems with life-saving function during seismic events’ (Directorate Decree of August 2, 2018 prot. n. 2052), funded under the Industrial Research and Experimental Development projects in the 12 Specialization Areas identified by the PNR 2015 – 2020 (Directorate Decree July 13, 2017 n. 1735).

2019-2020

Expert Evaluator, on behalf of the European Commission (European Commission – Research Executive Agency - REA), under the Call H2020-WIDESPREAD-2018-2020-6 (contract number CT-EX2013D162262-102).

MAIN RESEARCH PUBBLICATIONS

Peer-reviewed articles – International Journals

A1. Inan Ocak, Z., **Calderini, C.** (2025). Restoration Techniques Using Reinforced Concrete in Turkey Reinterpreted Through the Lens of the Venice Charter, *Journal of Architectural Conservation*, 2025, 1–20. Doi: 10.1080/13556207.2025.2483518

A2. Ferrero, C., Portioli, F.P.A., **Calderini, C.** (2025). Lateral load response of a dry-joint masonry arch subject to vertical support displacements by rigid block analysis, *Meccanica*, 107760, 2025. Doi: 10.1007/s11012-024-01927-7

A3. Inan Ocak, Z., **Calderini, C.** (2024). The Origins of Reinforced Concrete Interventions to Historic Structures in Turkey, *International Journal of Architectural Heritage*, 2024. Doi: 10.1080/15583058.2024.2402297

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