Giulia Scagliotti

E-mail : gscaglio@stanford.edu

EDUCATION AND TRAINING

January 2022 – Now
Stanford University
PhD Candidate in Sustainable Design & Construction (SDC)
Assisted research on Building Decarbonization within Industrialized Construction
Coursework: Construction Robotics, Artificial Intelligence for AECO, Engineering Economics and Sustainability, Industrialized Construction, Life Cycle Assessment for Complex Systems, Science and Engineering Course Design, Public Speaking, Women's Perspectives.

Sept. 2019 – March 2022
Stanford University
Earned Engineer Degree in Structural Engineering & Geomechanics (SEG)
Assisted research on earthquake engineering and non-structural elements.
Coursework: Design of Steel Structures, Geotechnical Engineering, Introduction to Matlab, Nonlinear Structural Analysis, Introduction to Performance-Based Earthquake Engineering, Programming Methodologies, Computations in Civil Engineering, Foundations and Earth Structures.

Aug. 2017 – May 2019
University of California, Berkeley
Earned Master of Science in Structural Engineering, Mechanics, and Materials (SEMM)
Coursework: Seismic Design of Reinforced Concrete, Dynamics of Structures, Structural Analysis, Design of Timber Structures, Engineering Risk Analysis, Civil Engineering Materials, Earthquake-Resistant Design, Earthquake Protective Systems, Concrete Technology.

Oct. 2010 – April 2016
University of Pavia, Faculty of Engineering *(http://ingegneria.unipv.it/)*
Earned Bachelor and Master, Building Engineering and Architecture
Final mark: 110/110 *cum Laude* (full marks with honors)

Oct. 2010 – Oct. 2016
Institute for Advanced Study (IUSS) of Pavia *(http://www.iusspavia.it/)*
Earned Diploma, Class of Sciences and Technologies
Admitted through national competition - Final mark: Excellent.
Research performed at the University of Washington (Seattle) as Visiting Graduate Student from May 2016 to November 2016

TEACHING EXPERIENCE

April 2020 – now
Stanford University
Instructor, Pre-Collegiate Studies, Introduction to Structural Engineering
(two 2-week online intensive course for high school students in Summer 2023 and 2024)
Developing the entire course, including syllabus, slides, readings, assignments and activities; delivering the lectures, supervising the teaching assistant.

Course Assistant, CEE 324 Industrialized Construction (Spring 2024, 2025)
Supporting course planning, coordinating guest speaker's visits and lectures, organizing factory/construction site visits, holding office hours, grading.

Course Assistant, CEE 293 Foundations and Earth Structures (Winter 2022, 2023, 2024)
Organizing construction site visits, holding office hours, grading.

Course Assistant, CEE 287 Earthquake Resistant Design & Construction (Spring 2020, 2021)
Holding office hours, preparing and improving solutions of the assignments, grading.

Graduate Teaching Fellow, CEE 101C Geotechnical Engineering (Summer 2020)
Helping with the transition from the in-person course format to an online format, preparing videos of laboratory activities, improving material for the lab sessions.

Tutor, Summer Session (Summer 2021, 2022, 2023, 2024)
Facilitating by appoinment and drop-in sessions with students, developing, and organizing at least two workshops (e.g., coding in MatLAB, intoduction to structural engineering, etc.)

Mentors-in-Teaching (MinT) Fellow (2020-2021)
Design a project on methods to create an inclusive learning environment and encourage interactions among peers, apply the methods on a specific course.

Oct. 2011 – April 2016 **University of Pavia, Faculty of Engineering**
Teaching Assistant, Mathematical analysis 1 and 2, Rational Mechanics, Technical Physics
Meeting classes on a weekly basis, selecting and explaining exercises to prepare the students for exams, answering questions, clarifying material.
More than 200 teaching hours overall with groups of more than 100 students.

PROFESSIONAL EXPERIENCE

July 2024 – Sept. 2024 **Neutral, LLC** *(https://www.neutral.us/)*
Sustainability & Life Cycle Analysis Specialist
Project: developing a Whole Building Life Cycle Assessment framework for a multi-family building product, to assess the embodied carbon of each material and component from the schematic design stage and be able to predict the embodied carbon of future projects.

May 2024 – June 2024 **Palari Homes, Inc. *(https://www.palari.com/)***
Sustainability Consultant
Project: Cradle-to-Gate Carbon Assessment for a Palari single-family house, which uses manufactured 3D-printed panels.

Sept. 2023 – Nov. 2023 **Veev Group, Inc.** *(https://www.veev.com/)*
Sustainability Consultant Intern
Project: Whole Building Life Cycle Assessment for a Veev single-family house, identification of strategies to further reduce its environmental impact, LCA comparison between Veev helical piles system and concrete foundation system.

Febr. 2017 – July 2017 **EUCENTRE, Pavia**
European Centre for Training and Research in Earthquake Engineering
Researcher, Vulnerability and Territorial Management area
Project: assessment of bridges for Provincia di Pavia and improvements to its database

SCHOLARSHIPS, FELLOWSHIPS, AND AWARDS

Scholarships and Fellowships

- Living Lab Fellowship, Stanford University – Embodied Carbon Project (2024/25)
- Foundation Blanceflor Scholarship (2020/21, 2021/22)
- P.E.O. International Peace Scholarship (2020/21, 2021/22)
- Ermenegildo Zegna Founder's Scholarship (2017/18, 2019/20, 2020/21)
- Concrete Masonry Association of California and Nevada Scholarship (2019)
- Fulbright Scholarship (2017) – UC Berkeley
- International House Scholarship, UC Berkeley (2017/18, 2018/19)
- Collegio Nuovo and IUSS support for interning at the University of Washington (2016)
- Annual IUSS Scholarship (2010-2015)
- Annual ARCA Scholarship (2010-2015)
- English language summer course Scholarship by Malta Embassy (2015)
- University of Pavia and IUSS Erasmus Scholarship - Germany (2014)
- Residential cost subsidy sponsored by the Lombardy Region (2011/12)

Awards

- CIFE Seed Research Award (2022/23)
- AIFOS award for the Thesis "Design of a seismic isolated primary school in Ancona" (one of the best seven italian thesis dealing with safety in schools)
- Selected as first Student Representative to deliver the inaugural speech of the 654th Academic Year of the University of Pavia (A.Y. 2014-2015)
- National finalist in Mathematical Games International Championship Bocconi University from 2004 to 2013. Best achieved results: 17th absolute and 2nd woman over 400 national finalists (2007), 31th absolute and 2nd woman over 200 national finalists (2011)

LIST OF PRESENTATIONS

Building 4.0 CRC 2024 Annual Conference (invited speaker). Presentation: Assessing and Predicting the Carbon Footprint of Industrialized Construction projects (September 3, 2024, Melbourne, Australia – September 5, 2024, Sydney, Australia).

32nd Annual Conference of the International Group for Lean Construction. Paper presentation. (July 4, 2024, Auckland, New Zealand)

Industrialized Construction Forum (invited speaker). Presentation: Enabling Circularity with Industrialized Construction (February 7, 2024, Stanford, United States).

SPONSE Fifth International Workshop on the Seismic Performance of Non-Structural Elements. Paper presentation. (December 6, 2022, Stanford, United States).

LIST OF PUBLICATIONS

Scagliotti, Fischer (submitted). Practical Challenges in Assessing Embodied Carbon and Cost Trade-offs in the Design Phase: Insights from a Residential Building Project.

Scagliotti, Agrawal, Fischer (2025). AI for the built environment. An opportunity to improve safety, efficiency and sustainability. Socio-economic impact of Artificial Intelligence, edited by Marseglia, Previtali, Reali. Springer.

Scagliotti, Lessing, Fischer (2024). Insights on Sustainability in Industrialized Construction in Europe and the United States. 32nd Annual Conference of the International Group for Lean Construction. 1-7 July 2024, Auckland.

Scagliotti, Miranda (2022). Effect of Spectral Shape on the Amplification of Peak Floor Acceleration Demands in Buildings. SPONSE. Proceedings of Fifth International Workshop on the Seismic Performance of Non-Structural Elements. 5-7 December 2022, Stanford (CA).

Scagliotti (2022). Evaluation of the factors influencing the seismic demand on non-structural elements. Final Thesis Engineer Degree, Stanford University.

Miranda, Brzev, Bijelić, Arbanas, Bartolac, Jagodnik, Lazarević, Mihalić Arbanas, Zlatović, Acosta, Archbold, Bantis, Borozan, Božulić, Blagojević, Cruz, Dávalos, Fischer, Gunay, Hadzima-Nyarko, Heresi, Lignos, Lin, Marinković, Messina, Miranda, Poulos, **Scagliotti**, Tomac, Tomić, Ziotopoulou, Žugić, Robertson, (2021). StEER-EERI: Petrinja, Croatia December 29, 2020, Mw 6.4 Earthquake Joint Reconnaissance Report (JRR). PRJ-2959. DesignSafe-CI.

Miranda, Acosta, Archbold, Arteta, Carrillo, Davalos, Gunay, Soto, Hassan, Heresi, Messina, Miranda S., Pajaro, Poulos, Robertson, Ruiz-Garcia, **Scagliotti**, Mosalam, Robertson, (2020) StEER: Crucecitas, Mexico June 23, 2020, Mw 7.4 Earthquake. Preliminary Virtual Reconnaissance Report (PVRR). PRJ-2805. DesignSafe-CI.

Scagliotti, (2016). Progetto di una scuola primaria isolata sismicamente ad Ancona, Tesi di laurea CdL Magistrale in Ingegneria Edile-Architettura, Premio AiFOS

Petrus, Maric, Thomaidis, Piombo, **Scagliotti**, Dimitrenko, Tirado, Hagos, Abrahamczyk, Schwarz, (2015). Evaluation of Existing Masonry Structures Under Extreme Impacts, Bauhaus Summer School: Engineering Courses, INSYSME

SERVICE

September 2024 – now	**Board of Trustees, Stanford University** *Student Representative, Committee on Land and Buildings*
September 2023 - now	**Society of Women Engineers, Stanford University** *Member of the Executive Board* Organizing initiatives such as STEM Faculty lunch roundtables, industry and social events.
September 2021 – now	**Center of Teaching and Learning, Stanford University** *Italian Language Conversation Partner* Providing language support to students in one-on-one sessions.
July 2018 – now	**Alumni Association – IUSS Pavia, Italy** *Member of the Board of Directors* Planning and developing initiatives and activities proposed to IUSS undergraduates.

May 2016 – now	**Collegio Nuovo – Pavia, Italy** Mentoring talented and motivated female undergraduates.
June 2014 – April 2016	**University of Pavia** Elected as Student Representative to the : • Academic Senate (about 25,000 students represented) • Department of Civil and Architectural Engineering • Teaching Committee of the Architectural Engineering Degree
Oct. 2012 – May 2014	**Institute for Advanced Study (IUSS) of Pavia** Elected as Student Representative to the : • Academic Senate (about 300 students represented)

PERSONAL SKILLS AND COMPETENCES

Languages	**Italian** (native), **English** (Fluent), **German** (Intermediate), **French** (Intermediate)
Certificates	**English Test** : IELTS overall band score 7.5 – October 2016 **German Test** : Zertifikat B2 (Goethe Institut) – October 2012
Computer skills	Mac OS-X and Windows operating systems Word, Excel, PowerPoint, AutoCAD, CSI SAP2000, Seismosoft (Seismostruct and Seismosignal), Python, Matlab, Photoshop, SketchUp, Revit