



Jana Olivo

Graduate Visiting Researcher Student, Civil & Envir Engr

Bio

BIO

I am a Fulbright Visiting Student Researcher at the Blume Earthquake Engineering Center at Stanford University and a PhD Candidate in Civil and Environmental Engineering at Politecnico di Torino. My research focuses on integrating performance-based design principles within structural optimization frameworks to develop safer, more resilient, and sustainable buildings and cities.

I investigate how structural optimization and artificial intelligence can challenge conventional design approaches and identify efficient solutions for seismic design and retrofit. My research interests include next-generation performance-based seismic design, structural resilience, and the integration of losses, consequences, and recovery into optimization-based design frameworks.

My academic path has been shaped by international exchange and collaboration. I have conducted research and teaching activities across Italy, Greece, China, and the United States, including two Marie Skłodowska-Curie Staff Exchange periods at the National Technical University of Athens and Inference, and Adjunct Lecturer positions at Politecnico di Torino and South China University of Technology. I also completed a Double-Degree Program in Civil Engineering between Universidad Nacional de Córdoba and Politecnico di Torino.

HONORS AND AWARDS

- Fulbright Visiting Student Researcher Grant, Fulbright Program, hosted at Stanford University (Oct 2026 - Apr 2027)
- MIT CEE Rising Stars Cohort and Travel Grant, Massachusetts Institute of Technology (MIT) (Oct 2026)
- NEXT-GEN Spring School Travel Grant, IUSS Scuola Universitaria Superiore di Pavia (Apr 2026)
- Outstanding Presentation Award, ARTISTE 2025 Conference (Sep 2025)
- Double-Degree Program Scholarship Awarded on Academic Merit, Politecnico di Torino (Italy) & Universidad Nacional de Córdoba (Argentina) (Sep 2021 - Oct 2023)

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

- International Ambassador, Universidad Nacional de Córdoba (Argentina) (Faculty of Exact, Physical and Natural Sciences FCEPyN) (2023 - present)
- Associate Editor, Journal of Building Pathology and Rehabilitation (2026 - present)
- Organizing Committee Member, IASS (International Association for Shells & Spatial Structures) Conference 2026 (2026 - 2026)
- Member, ARTISTE (Artificial Intelligence in Structural Engineering) International Association (2022 - present)
- Member, ReLUIIS (Network of University Laboratories of Earthquake and Structural Engineering), Politecnico di Torino research unit (2023 - present)
- Member, CTA Young Initiative, CTA (Italian Steelwork Association) (2024 - present)

EDUCATION AND CERTIFICATIONS

- Bachelor of Science, Universidad Nacional de Córdoba (Argentina) , CEE (2020)
- Master of Science, Universidad Nacional de Córdoba (Argentina) , CEE (2023)
- Master of Science, Politecnico di Torino (Italy) , CEE, Structural Engineering (2023)
- PhD Candidate, Politecnico di Torino (Italy) , CEE, Structural Optimization for the Seismic Design of Buildings and Cities (2027)

LINKS

- LinkedIn: <https://www.linkedin.com/in/jana-olivo/>
- ARTISTE Lab: <https://artisteassociation.org/>
- SURI Lab: <https://urbanresilience.stanford.edu/>
- Scopus: <https://www.scopus.com/authid/detail.uri?authorId=59032251300>
- Google Scholar: <https://scholar.google.com/citations?user=RFFmeNIAAAAJ&hl=es&oi=ao>

Research & Scholarship

PROJECTS

- Toward Safer, Resilient, and Sustainable Cities - Stanford University, Blume Earthquake Engineering Center (September 21, 2026 - present)
- Structural Optimization and AI for Seismic Design and Retrofit of Buildings - Politecnico di Torino, ARTISTE Lab (November 1, 2023 - present)
- ADAPT4CE: Adaptive Digital Systems for Sustainable Construction and Material Management in the Circular Economy - Marie Skłodowska-Curie Actions (MSCA) Horizon Staff Exchanges 2023, National Technical University of Athens (June 1, 2025 - August 31, 2025)
- ADDOPTML: ADDitively Manufactured OPTimized Structures by means of Machine Learning - Marie Skłodowska-Curie Actions (MSCA) Research and Innovation Staff Exchange (RISE), Inference (July 1, 2024 - September 30, 2024)

Professional

WORK EXPERIENCE

- Visiting Lecturer - CEYAI-SE - Southeast University (August 31, 2026 - September 9, 2026)
- Adjunct Lecturer - Infrastructural Design Studio - South China University of Technology (May 15, 2026 - June 15, 2026)
- Adjunct Lecturer - Structural Analysis and Design - Politecnico di Torino (February 1, 2026 - September 30, 2026)
- Master's Thesis Co-Supervisor - Politecnico di Torino (February 1, 2025 - December 15, 2025)
- Visiting Lecturer - Southeast University (October 28, 2025)
- Student Teaching Assistant - Technical Drawing - Universidad Nacional de Córdoba (March 1, 2018 - March 1, 2019)

Publications

PUBLICATIONS

- **Performance-based optimization of steel exoskeletons: An alternative approach to standard regulations** *JOURNAL OF BUILDING ENGINEERING*
Cucuzza, R., Olivo, J., Bertagnoli, G., Ferro, G., Marano, G.
2025; 104
- **Optimal design of steel exoskeleton for the retrofitting of RC buildings via genetic algorithm** *COMPUTERS & STRUCTURES*
Olivo, J., Cucuzza, R., Bertagnoli, G., Domaneschi, M.
2024; 299
- **Structural, Economic and Environmental Assessment of Steel and Timber Exoskeletons for the Retrofit of RC Buildings**
Cucuzza, R., Iovane, G., Lazzurri, T., Olivo, J., Domaneschi, M., Faggiano, B.
edited by Mazzolani, F. M., Landolfo, R., Faggiano, B., Brando, G., Cascini, L., Portioli, F. P.

SPRINGER INTERNATIONAL PUBLISHING AG.2025: 334-339

- **Performance-Based Optimization Framework Considering Shear Wall Height Impact on Structural Behavior of High-Rise Buildings** *COMPDYN*

Olivo, J., Cucuzza, R., Domaneschi, M., Gao, K., Marano, G.
2025

- **Steel Exoskeletons for the Seismic Retrofit of an Existing RC Building: Optimal Design and Life Cycle Assessment**

Olivo, J., Cucuzza, R., Domaneschi, M., Rad, M., Di Bari, R., Marano, G. C., Ferro, G. A.
edited by Zhou, Y., Cardoni, A., Ansari, F., Cimellaro, G. P.
SPRINGER INTERNATIONAL PUBLISHING AG.2025: 214-225

- **Stiffness Ratio Evaluation of Steel Exoskeletons Through Performance-Based Optimal Design** *Material Strength and Applied Mechanics*

Olivo, J., Cucuzza, R., Movahedi Rad, M., Domaneschi, M., Ferro, G., Marano, G.
2024