

CURRICULUM VITAE - MICAELA MERCURI

§ EDUCATION

- Northwestern University - Evanston (IL), USA** 2025
Ph.D. in Mechanics of Materials and Structures
- University of L'Aquila - L'Aquila, Italy** 2021
Ph.D. in Civil Engineering
- University of L'Aquila - L'Aquila, Italy** 2016
M.S. and B.S. in Building Engineering and Architecture (Summa cum laude)

§ PUBLICATIONS

Peer-Reviewed Articles

15. **Mercuri M***, Vailati M, Gregori A. [Sustainable retrofitting of the architectural heritage: chopped basalt fibers reinforced mortar](#). *Fibers*, 13(2), p.20. (IF: 4.0)
14. Vailati M, **Mercuri M**, Gregori A. [Out-of-plane non-intrusive seismic retrofitting of in-plane damaged masonry infill through 3D printed recycled plastic devices](#). *Construction and Building Materials*. 2024 Aug 9; 438:137256. (IF: 7.4)
13. **Mercuri M**, Vailati M, Gregori A. [Two-heads brick masonry walls strengthened by basalt and glass chopped fiber mortar: Effect of bed joints and coating reinforcements](#). *Structures*. 2024 Jun; 64:106530. (IF: 3.9)
12. **Mercuri M**, Pathirage M, Greogri A, Cusatis G. [Influence of self-weight on size effect of quasi-brittle materials: generalized analytical formulation and application to the failure of irregular masonry arches](#). *International Journal of Fracture*. 2023 Jun; 16:1-28. (IF: 2.6)
11. Mei C, **Mercuri M**, Rudnicki JW. [Rock friction experiments and modeling under hydrothermal conditions](#). *Earth-Science Reviews*. 2024 Jul; 254:104824. (IF: 10.8)
10. Vailati M, **Mercuri M***, Gregori A. [One-head masonry panels reinforced with industrial-waste fiber reinforced mortar: Investigating the effect of bed joints and coating reinforcement in the diagonal compressive behavior](#). *Structures*. 2024 May; 63:106474. (IF: 3.9)
9. Gregori A, Castoro C, **Mercuri M**, Di Natale A, Di Giampaolo E. [Innovative use of UHF-RFID wireless sensors for monitoring cultural heritage structures](#). *Buildings*. 2024 Apr 15; 14(4):1155. (IF: 3.1)
8. Vailati M, Gregori A, **Mercuri M**, Monti G. [A non-intrusive seismic retrofitting technique for masonry infills based on bed-joint sliding](#). *Journal of Building Engineering*. 2023 Jun 15; 69:106208. (IF: 6.7)
7. **Mercuri M***, Vailati M, Gregori A. [Lime-based mortar reinforced with randomly oriented polyvinyl-alcohol \(PVA\) fibers for strengthening historical masonry structures](#). *Developments in the Built Environment*. 2023 Apr; 14: 100152. (IF: 6.2)
6. Gregori A, **Mercuri M***, Angiolilli M, Pathirage M. [Simulating defects in brick masonry panels subjected to compressive loads](#). *Engineering Structures*. 2022 Jul 15;263:114333. (IF: 5.6)

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5. **Mercuri M**, Pathirage M, Gregori A, Cusatis G. [Masonry vaulted structures under spreading supports: Analyses of fracturing behavior and size effect](#). Journal of Building Engineering. 2022 Jan 1;45:103396. (IF: 7.2)
 4. **Mercuri M**, Pathirage M, Gregori A, Cusatis G. [On the collapse of the masonry Medici tower: An integrated discrete-analytical approach](#). Engineering Structures. 2021 Nov 1;246:113046. (IF: 5.582)
 3. Vailati M, **Mercuri M**, Angiolilli M, Gregori A. [Natural-Fibrous Lime-Based Mortar for the Rapid Retrofitting of Heritage Masonry Buildings](#). Fibers. 2021 Oct 30; 9(11):68. (IF: 3.9)
 2. Gregori A, Castoro C, **Mercuri M**, Angiolilli M. [Numerical modelling of the mechanical behaviour of rubbercrete](#). Computers and Structures. 2021 Jan 1; 242:106393. (IF: 4.4)
 1. **Mercuri M**, Pathirage M, Gregori A, Cusatis G. [Computational modeling of the out-of-plane behavior of unreinforced irregular masonry](#). Engineering Structures. 2020 Nov 15;223:111181. (IF: 5.582)

Book Chapters

1. Gregori A, Castoro C, **Mercuri M**, Angiolilli M. [Modeling the mechanical response of rubberised concrete](#). In Developments and Novel Approaches in Biomechanics and Metamaterials, Volume 3 2020 (pp. 341-352). Springer.

Articles in Conference Proceedings

4. **Mercuri M**, Pathirage M, Gregori A, Cusatis G. [Analysis of the behavior of the masonry Medici tower resorting on a hybrid discrete-kinematic methodology](#). In Procedia Structural Integrity 2023 Jan 1;44:1640-7.
3. Gregori A, Castoro C, Di Natale A, **Mercuri M**, Di Giampaolo E. [Using commercial UHF-RFID wireless tags to detect structural damage](#). In Procedia Structural Integrity 2023 Jan 1;44:1586-1593.
2. **Mercuri M**, Pathirage M, Gregori A, Cusatis G. [Fracturing and collapse behavior of masonry vaulted structures: a lattice-discrete approach](#). In Procedia Structural Integrity 2023 Jan 1;44:1276-83.
1. **Mercuri M**, Pathirage M, Gregori A, Cusatis G. [Lattice discrete modeling of out-of-plane behavior of irregular masonry](#). In Proceedings of the 8th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering 2021 (pp. 546-562).