

Livia de Almeida Freitas

PhD Candidate

Institute of Geosciences, University of São Paulo (USP)
Rua do Lago, 562
05508-080 São Paulo, SP, Brazil

Tel.: (+55) 11 98677-0157

Email: livia.almeidafr@usp.br

Education and Professional Career

2019-2023 B.Sc. in Geology, University of São Paulo (USP), Brazil.

2024-2025 Hydrogeologist, Institute for Technological Research (IPT), São Paulo, Brazil.

2024-present Ph.D. Candidate in Hydrogeochemistry, University of São Paulo (USP), Brazil.

Commitment, Appointments and Scientific Volunteer Jobs

2020-2021 Undergraduate Research Fellow in Igneous Petrology, Institute of Geosciences, University of São Paulo (USP), Brazil. Research scholarship funded by CAPES.

2021-2022 Teaching Assistant – Sedimentology, Institute of Geosciences, University of São Paulo (USP), Brazil.

2022 Teaching Assistant – Energy Resources, Institute of Geosciences, University of São Paulo (USP), Brazil.

2023-2024 Undergraduate Research Fellow in Hydrogeology, Institute of Geosciences, University of São Paulo (USP), Brazil. Research scholarship funded by FAPESP.

2023 Teaching Assistant – Hydrogeology, Institute of Geosciences, University of São Paulo (USP), Brazil.

2024-present Member of IAH (International Association of Hydrogeologists).

2024 Invited Lecturer at *Geology Week* – "Groundwater in Brazil: Exploring Opportunities." Institute of Geosciences, University of São Paulo (USP), São Paulo, Brazil. Organized by CEPEGE (São Paulo Center for Geological Studies).

2025 Teaching Assistant – Geochemistry, Institute of Geosciences, University of São Paulo (USP), Brazil.

2025 Invited Speaker at the workshop "Water in Our Place: Discovering Springs, Wells, and the Memory of Water Supply," in Bauru, São Paulo, Brazil. The workshop was part of the extension project "Sustainable Cities for the Elderly: Transforming Communities and Ensuring Quality of Life for All," organized by the ArqHab Research Group, São Paulo State University (UNESP), Bauru, Brazil.

2025-present Member of InterPore.

Professional Awards, Offers and Recognitions

- | | |
|------|--|
| 2021 | Best Presentation Award – 29th USP Scientific Initiation Symposium. |
| 2023 | Professor Fábio Taioli Award – Best Undergraduate Thesis, Institute of Geosciences, University of São Paulo. |
| 2025 | Best Poster Award – Ricardo Rodrigues Synchrotron Light School (ER2LS), Brazilian Synchrotron Light Laboratory (LNLS). |
| 2025 | Best Oral Presentation Award – 4th Graduate Symposium, Institute of Geosciences, University of São Paulo. |

Most important Publications (maximum 10) (Peer reviewed journal articles / books / patents)

- [1] Freitas, L.; Varnier, C.; Marques, C. G.; Hirata, R.; Marconato, A.; Barreto, F. S.; Negri, F. A.; Bertolo, R. The Araçatuba Formation as an Aquitard in the Basalt Window: Hydrostratigraphic Implications for the Bauru and Guarani Aquifer Systems (São Paulo, Brazil). *Journal of South American Earth Sciences*, 2026.
- [2] Freitas, L.; Pino, D.; Varnier, C.; Hirata, R. Micro-characterization of the Bauru Aquifer System (Brazil). *InterPore2026 Annual Meeting*, Nantes, France, 2026.
- [3] Freitas, L. A.; Pino, D. S.; Varnier, C.; Hirata, R. Detailing Nitrogen Transformations in Aquifers Using Synchrotron-Based X-ray Microtomography. *4th Graduate Symposium*, University of São Paulo, 2025.
- [4] Freitas, L. A.; Pino, D. S.; Varnier, C.; Hirata, R. Detailing Nitrogen Transformations in Aquifers Using Synchrotron-Based X-ray Microtomography. *Ricardo Rodrigues Synchrotron Light School (ER2LS)*, 2025.
- [5] Freitas, L. A.; Varnier, C.; Marques, C. G.; Barreto, F. S.; Bertolo, R.; Hirata, R. Lithostratigraphy of the Urban Area of Bauru (SP). *Brazilian Congress on Groundwater*, 2024.
- [6] Pino, D. S.; Freitas, L.; Barreto, F. S.; Nakayama, C.; Varnier, C.; Bertolo, R.; Hirata, R. Microbiological and Pore-Structure Characterization of an Urban Aquifer Contaminated by Sewage Leakages. *InterPore2026 Annual Meeting*, Nantes, France, 2026.
- [7] Marques, C. G.; Freitas, L. A.; Varnier, C.; Bertolo, R.; Hirata, R. Intensive Pumping of Private Wells and the Risk to Water Security in Bauru (SP). *Brazilian Congress on Groundwater*, 2024.
- [8] Barreto, F. S.; Freitas, L. A. Hydrostratigraphy of the Bauru and Guarani Aquifer Systems in the Central Region of São Paulo State (Brazil). *IAH World Groundwater Congress*, 2023.