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- B.Sc. in Geology, National and Kapodistrian University of Athens, Greece (2002)
- M.Sc. in Water Resources Science and Technology, National Technical University of Athens, Greece (2004)
- Ph.D. in Hydrogeology and Isotope Hydrology, National and Kapodistrian University of Athens, Greece (2010)
- M.Sc. in Waste Management, Hellenic Open University, Greece (2012)
- Post-doc in groundwater dating using vulnerability assessment techniques, machine learning, and advanced spatial analysis methods, National Technical University of Athens (2025)

### **Curriculum Vitae**

Dr. Ioannis Matiatos is a Geologist specializing in water resources management, isotope hydrology and hydrogeology, hydrogeochemistry, and the quality of surface and groundwater resources. His main research interests include nitrate pollution and biogeochemical processes in aquatic systems, the use of stable isotopes as environmental tracers, water origin and dating, flow and mass transport modeling, as well as aquifer vulnerability, seawater intrusion, and climate change impacts.

He graduated with honors from the Department of Geology of the National and Kapodistrian University of Athens (NKUA) and obtained an M.Sc. in Water Resources Management from the National Technical University of Athens (NTUA) with a scholarship from the State Scholarships Foundation (IKY). He completed his PhD at NKUA, focusing on hydrogeological and isotopic investigations in the Argolis Peninsula. He also holds an M.Sc. in Waste Management from the Hellenic Open University and completed postdoctoral research at NTUA on groundwater dating and vulnerability assessment using machine learning, and advanced spatial analysis methods.

From 2006 to 2014, he worked as a Research Associate at NKUA, participating in European and national research projects, while in 2013 he received specialized training on nitrogen isotopes at

Ghent University, Belgium. From 2014 to 2021, he served as an Isotope Hydrologist at the International Atomic Energy Agency (IAEA), providing technical and scientific support to projects in more than 20 UN Member States and coordinating international research programs focusing on the application of isotope hydrology techniques in the water cycle. He also contributed to the implementation of activities of the IAEA Global Network of Isotopes in Rivers (GNIR), and in 2020 he received the IAEA Staff Excellence Award.

Since 2021, he has been a Research Associate at the Hellenic Centre for Marine Research (HCMR), contributing to the implementation of the Water Framework Directive monitoring program, and since 2025 he has been the Scientific Coordinator of the IAEA-funded project “Isotope-Based Assessment of Nutrient Dynamics in the Sperchios River Basin: Tracing Pathways from Inland to Sea (INSPIRES)”. He has authored or co-authored >50 papers in international peer-reviewed journals, 3 chapters in books, and >50 contributions at international conferences, with over 1,670 citations (h-index: 20).

### **Recent publications (last 5 years)**

- Matiatos, I., Dimitriou, E., Papadopoulos, A., Lazogiannis, K., Skoulikidis, N.T., Karaouzas, I., Vardakas, L., Lagogiannis, S., Zotou, I., Paraskevopoulou, V. and Boeckx, P., 2025. Dual use of isotopic and environmental proxy approaches to trace nitrate sources and biogeochemical pathways in an agro-industrially influenced river basin. *Science of The Total Environment*, 1005, p.180863.
- Mayer, B., Matiatos, I., 2025. Nutrient dynamics in rivers and lakes. In: Reference Module in Earth Systems and Environmental Sciences, Elsevier (Book chapter, 10.1016/b978-0-323-99762-1.00077-2).
- Balestrini, P., Colombo, N., Freppaz, M., Lehmann, M. F., Delconte, C., Pintaldi, E., Salerno, F., and Matiatos, I., 2025. Permafrost, Land Cover, and Nitrogen Cycling Under Atmospheric N Loading in Fragile Alpine Tundra Basins. Available at SSRN: <https://ssrn.com/abstract=5352973> or <http://dx.doi.org/10.2139/ssrn.5352973> (under review CATENA).
- Paule-Mercado, M.C., Rabaneda-Bueno, R., Porcal, P., Kopacek, M., Matiatos, I., Huneau, F. and Vystavna, Y., 2025. The role of groundwater connectivity in sustaining European lake water systems. *Science of The Total Environment*, 994, p.180038.
- Drougas, C., Kelepertzis, E., Kypridou, Z., Sigala, E., Matiatos, I., Dotsika, E., Vasileiou, E., Louloudis, G., Mertiri, E., Boeckx, P. and Oikonomopoulos, E., 2025. Controls on the geochemical composition of surface water in Alfeios River basin in the transition era of lignite mine closure at Megalopolis, Greece. *Science of The Total Environment*, 970, p.179006.
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- Matiatos, I., Tsangaratos, P., Copia, L. and Araguas-Araguas, L., 2025. Revisiting the historical tritium levels in precipitation in Greece—Preliminary assessment of groundwater transit times. *Journal of Environmental Radioactivity*, 282, p.107619.
- Buškulić, P., Kovač, Z., Matiatos, I. and Parlov, J., 2025. Tracing nitrate contamination sources and dynamics in an unconfined alluvial aquifer system (Velika Gorica well field, Croatia). *Environmental Science: Processes & Impacts*, 27(1), pp.154-171.
- Boumaiza, L., Stotler, R.L., Mayer, B., Matiatos, I., Sacchi, E., Otero, N., Johannesson, K.H., Huneau, F., Chesnaux, R., Blarasin, M. and Re, V., 2024. How the  $\delta^{18}\text{O}\text{NO}_3$  versus  $\delta^{15}\text{N}\text{NO}_3$  Plot Can Be Used to Identify a Typical Expected Isotopic Range of Denitrification for  $\text{NO}_3$ -Impacted Groundwaters. *ACS ES&T Water*, 4(12), pp.5243-5254.
- Quinodoz, F.M., Cabrera, A., Blarasin, M., Matteoda, E., Pascuini, M., Prámparo, S., Boumaiza, L., Matiatos, I., Schroeter, G., Lutri, V., Giacobone, D., 2024. Chemical and isotopic tracers combined with mixing models for tracking nitrate contamination in the Pampa de Pocho aquifer, Argentina. *Environmental Research*, 259, pp. 119571.
- Matiatos, I., Monteiro, L.R., Sebilo, M., Soto, D.X., Gooddy, D.C. and Wassenaar, L.I., 2024. Isotopes reveal the moderating role of ammonium on global riverine water nitrogen cycling. *ACS ES&T Water*, 4(4), pp.1451-1459.
- Kypridou, Z., Kelepertzis, E., Kritikos, I., Kapaj, E., Skoulika, I., Kostakis, M., Vassilakis, E., Karavoltos, S., Boeckx, P. and Matiatos, I., 2024. Geochemistry and origin of inorganic contaminants in soil, river sediment and surface water in a heavily urbanized river basin. *Science of The Total Environment*, 927, p.172250.
- Balestrini, R., Diémoz, H., Freppaz, M., Delconte, C.A., Caschetto, M. and Matiatos, I., 2024. Nitrogen atmospheric deposition in a high-altitude Alpine environment: A chemical and isotopic approach to investigate the influence from anthropized areas. *Atmospheric Environment*, 328, p.120513.
- Matiatos, I., Lazogiannis, K., Papadopoulos, A., Skoulikidis, N.T., Boeckx, P. and Dimitriou, E., 2023. Stable isotopes reveal organic nitrogen pollution and cycling from point and non-point sources in a heavily cultivated (agricultural) Mediterranean river basin. *Science of The Total Environment*, 901, p.166455.
- Smith, A.C., Leng, M.J., McGowan, S., Panizzo, V.N., Ngo, T.T.T., Luu, T.N.M., Matiatos, I., Do, T.N., Ta, T.T., and Trinh, A.D., 2023. Identifying the controls on nitrate and metabolic state within the Red River delta (Vietnam) with the use of stable isotopes, *Journal of Hydrology*, 628, 130467, <https://doi.org/10.1016/j.jhydrol.2023.130467>.
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- Tsangaratos, P., Ilia, I., Chrysafi, A.-A., Matiatos, I., Chen, W. and Hong, H., 2023. Applying a 1D Convolutional Neural Network in Flood Susceptibility Assessments—The Case of the Island of Euboea, Greece. *Remote Sens.* 15, 3471. <https://doi.org/10.3390/rs15143471>.
- Esquivel-Hernández, G., Sánchez-Murillo, R., Villalobos-Córdoba, D., Monteiro, L.R., Villalobos-Forbes, M., Sánchez-Gutiérrez, R., Cotrim, M.E.B. and Matiatos, I., 2023. Exploring the acid neutralizing effect in rainwater collected at a tropical urban area: Central Valley, Costa Rica, *Atmospheric Pollution Research*, 14 (9), <https://doi.org/10.1016/j.apr.2023.101845>.

- Skoulikidis, N.T., Matiatos, I., Michalopoulos, P., Smeti, E., Özkan, C., Akepsimaidis, K., Laschou, S. and Stumpp, C., 2023. Sources of major elements and nutrients in the water cycle of an undisturbed river basin–Samothraki Island, Greece. *Science of The Total Environment*, p.165361.
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