

Postdoctoral Research Fellowship

BIOGRIP Soil and Water Node, Stellenbosch University Hosted at the Department of Earth Sciences, Faculty of Science

Project Overview:

Isotope Hydrogeology: Radon in groundwater

Position Overview: We are seeking a highly motivated postdoctoral researcher in hydrogeology to join an exciting research project focused on understanding groundwater systems in the Western Cape through the use of environmental isotopes, including radon, stable water isotopes, and other tracers. The project aims to enhance knowledge of groundwater origins, flow pathways, and timescales, with an emphasis on integrating geospatial and isotopic data. The successful candidate will play a key role in field sampling and isotopic analysis while also applying GIS and Python for data manipulation, spatial analysis, and advanced modelling. Field groundwater sampling experience, GIS spatial analysis experience, and/or coding/computer simulation experience, and/or nuclear physics/radiation physics experience will be advantageous.

Qualifications:

- PhD in Hydrogeology, Earth Science, Environmental Science, Geochemistry, Nuclear Physics, or a closely related field. PhD should have been obtained within the last 5 years
- Excellent communication skills, both written and verbal, with a strong publication record in the field.
- Strong skills in GIS, including proficiency in ArcGIS, QGIS, or similar platforms for spatial analysis and data visualisation.
- Demonstrated ability to conduct fieldwork, including groundwater sampling and monitoring.
- A collaborative approach to work, with the ability to mentor students and work across disciplines.

Details: The position is for 24 months, commencing in early 2026. Renewal of the position for the second year is subject to performance. A competitive stipend of R300,000/annum is available. Please note that applicants need to have obtained their PhDs no later than 2022 to be eligible to apply. Closing date for applications is 12 February 2026.

Additional considerations:

- 1) valid driver's license is a requirement due to the field work required.
- 2) willingness and physically able to work in remote environments.

Queries and applications: Please direct all enquiries to Dr Amy Allwright (allwrightaj@sun.ac.za). In order to apply, please submit (1) a detailed CV with all relevant experience including publications and conference attendance, (2) three contactable referees, (3) a letter of motivation, detailing research experience and why you would be a good fit for the research group.

Why Join Us? This position offers an excellent opportunity to work on a research project with interdisciplinary collaborations in hydrogeology, isotope geochemistry, physics, and geospatial analysis. You will have access to laboratory facilities, GIS tools, and opportunities to contribute to significant regional groundwater research with direct applications for water resource management and environmental protection in South Africa. The position also offers a supportive academic environment, allowing for further development in both practical and computational hydrogeology.