

GIF Education and Training series

Webinar #105

Science for the safe disposal of nuclear waste – a German perspective

Hosted by the GIF Education and Training Working Group

Join us on October 08, 2025, 14:30 CEST (UTC+2)

Science for the safe disposal of nuclear waste – a German perspective

In 2024 Germany completed the phasing out of nuclear energy production. Since the release of the site selection act in Germany in 2017 the site selection process for a deep geological repository for high level nuclear waste is ongoing, coordinated by the German Federal Company for Radioactive Waste Disposal. Since several decades, the Institute for Nuclear Waste Disposal of the Karlsruhe Institute of Technology (KIT-INE), as a part of the Helmholtz association, is performing independent Radio-Geochemical research to support the safe disposal of nuclear wastes. Studies focus on lab investigations in the radiochemical laboratories at KIT Campus North, but include also large-scale experiments in underground research laboratories in crystalline (Grimsel) and clay rock (Mont-Terri) in Switzerland. Such studies allow gaining knowledge on radionuclides interactions with the geological and the engineered barrier systems under near-natural and repository relevant conditions. In this webinar we will highlight recent results of our studies about the migration behavior of radionuclides in crystalline and clay rock, and how they feed into the German site selection process and contribute to the international research on the safety of deep geological repositories.

Dr. Patricia Paviet from PNNL, USA, member of GIF ETWG will facilitate this webinar and moderate the Q&A session that will be held in the second part of the webinar.

The GIF ETWG webinar series started in 2016 with over 100 webinars streamed since then. People from more than 80 countries have attended these webinars over the years. You can learn more about [previous webinars](#) and [ETWG activities](#) on the [GIF website](#).

Speakers

Dr. Francesca Quinto is deputy head of the “Radionuclide Speciation and Analytics” department at the Institute for Nuclear Waste Disposal of the Karlsruhe Institute of Technology (KIT-INE). After receiving her PhD in Novel Physics Methodologies applied to Environmental Research at the “Seconda Università degli Studi di Napoli” (Italy), she was for one year at the VERA Laboratory of the University of Vienna (Austria) and afterwards Postdoc at Joint Research Centre - Institute for Transuranium Elements in Karlsruhe. Her research focusses on ultra-trace analysis with Accelerator Mass Spectrometry and radionuclide migration in crystalline and clay rocks. She is a member of the German delegation of the Crystalline Club of the Nuclear Energy Agency and an experiment team delegate for the International Steering Committee of the Grimsel Test Site.



Dr. Frank Heberling is deputy head of the “Radioactive Waste and Barriers in Repository” department at the Institute for Nuclear Waste Disposal of the Karlsruhe Institute of Technology (KIT-INE) and lecturer in Applied Geosciences at KIT. He is leading a research group focusing on investigations of radionuclide migration in waste disposal barriers. He received his PhD in Geochemistry and Mineralogy at KIT. His research focusses on interactions of radionuclides with mineral phases, including synchrotron studies and thermodynamic modelling, as well as diffusion processes of radionuclides in clay materials. He is a member of the German delegation of the Clay Club of the Nuclear Energy Agency.



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When:

October 08 - 2025
14:30 CEST (UTC+2)

Who should attend:

policymakers, industry professionals, regulators, researchers, students, general public