European Joint Programme on Radioactive Waste Management

PHD SCHOOL

EURAD WP GAS & WP HITEC

28 August – 1 September 2023, Liege (BE)

Multiphysics and multiscale coupled processes in geomaterials.

Focus on thermal effects and gas transfer impact on the behaviour of geomaterials.

OVERVIEW

We are happy to invite you to the second GAS/HITEC Joint training course, which will be held in Liege between 28 August and 1 September 2023.

Geomechanics plays a significant role in the understanding of the multiphysics and multiscale processes taking place in a geological disposal facility for radioactive waste. The objective of the school is to introduce state-of-the-art understanding, concepts and methods related to thermo-hydro-mechanical coupled processes, the physical impacts of thermal loading and the mechanistic understanding of gas migration in geomaterials. Results arising from the EURAD project will be integrated to the school, and a half day will be dedicated to presentations by early-career researchers. A visit to the HADES Underground Research Laboratory will be organised on the last day of the school.

TARGET AUDIENCE

- (Early-career) researchers involved in the WP GAS or WP HITEC of EURAD
- (Early-career) researchers affiliated to an ALERT Geomaterials member
- Members of waste management organisations and technology support organisations

VENUE

The PhD school will be held in the Mechanics and Civil Engineering buildings of the **ULiege (Sart-Tilman campus)**, Liege, Belgium.

Liege is well connected with a range of public transport options and offers plenty of options for accommodation.

PROGRAMME

Monday 28 August	
9.00 – 12.30	Basics of thermo-hydro-mechanical processes in geomaterials F. Collin, ULiège
13.30 – 17.00	Basics of experimental testing of geomaterials Alessio Ferrari, EPFL
Tuesday 29 August	
9.00 – 12.30	Constitutive modelling of thermo-hydro-mechanical processes in geomaterials Jean-Michel Pereira, ENPC
13.30 – 17.00	Development, validation and maintenance of numerical codes Olaf Kolditz, UFZ
19.30	Banquet at the city center
Wednesday 30 August	
9.00 – 12.30	PhD day: poster sessions and pitches
13.30 – 17.00	Advanced multiphysics experimental testing and imaging of geomaterials Laura Gonzalez-Blanco (UPC), Dragan Grigc (U Lorraine), Jiri Svoboda (CTU), Andrew Wiseall (BGS)
Thursday 31 August	
9.00 – 12.30	Advanced multiphysics modelling of geomaterials: multiscale approaches and heterogeneities Pierre Bésuelle (UGA), Frédéric Collin (ULiège), Anne-Catherine Dieudonné (TU Delft), Sebastià Olivella (UPC)
13.30 – 17.00	*In situ* THM and gas experiments Arnaud Dizier (Euridice), Emiliano Stopelli (TBC), Carlos Plua (ANDRA), Maria Victoria Villar (CIEMAT)
Friday 1 September	
Departure to Mol at 8.00	
9.30 – 12.00	Group 1 visits Tabloo expositions Group 2 visits EURIDICE_HADES underground research laboratory
12.15 – 13.15	Sandwich lunch (16 € pp + drinks)
13.15 – 15.30	Group 2 visits Tabloo expositions Group 1 visits EURIDICE_HADES underground research laboratory
Return from Mol at 15.45	

REGISTRATION

Registration is free of charge.

A maximum of 80 participants will be able to join the school. Priority will be given to researchers involved in EURAD and members of ALERT Geomaterials until 1 July 2023.

CONTACT

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