

# EURAD SCHOOL FOR RADIOACTIVE WASTE MANAGEMENT | GAS & HITEC MULTIPHYSICAL COUPLINGS IN GEOMECHANICS: A FOCUS ON THERMAL EFFECT AND GAS TRANSFER IMPACT ON THE BEHAVIOUR OF GEOMATERIALS

January 22 - 24, 2020 | Liège University

## PROGRAMME

Day 1 | Wednesday, January 22, 2020

09:00 – 09:30 h	Welcome, registration and coffee
09:30 – 10:00 h	Introduction General aspects, <i>Frédéric Collin &amp; Robert Charlier, Université de Liège</i> Challenges addressed by HITEC WP, <i>Markus Olin, VTT Technical Research Centre of Finland</i> Challenges addressed by GAS WP, <i>Séverine Levasseur, Ondraf/Niras</i>
10:00 – 10:30 h	Coffee break
10:30 – 12:30 h	Fundamentals on geomechanics and multi-physical couplings <i>Antonio Gens, Universitat Politècnica de Catalunya</i>
12:30 – 13:30 h	Lunch
13:30 – 15:00 h	Experimental evidences of high temperature effect, at lab scale <i>Pierre Delage, École des Ponts ParisTech</i>
15:00 – 15:30 h	Coffee break
15:30 – 17:00 h	Constitutive modelling for thermomechanical behaviour of geomaterials <i>David Masin, Charles University Prague</i>
17:00 – 17:15 h	Closure

## Day 2 | Thursday, January 23, 2020

09:00 – 10:30 h	THM coupling and FE numerical modelling <i>Frédéric Collin, Université de Liège</i>
10:30 – 11:00 h	Coffee break
11:00 – 12:00 h	Microstructure of clay materials, focus on Bentonite <i>Anne-Catherine Dieudonné, TU Delft</i>
12:00 – 13:00 h	Lunch
13:00 – 14:30 h	Experimental evidences of gas transfers at lab scale <i>John Harrington, British Geological Survey</i>
14:30 – 15:00 h	Coffee break
15:00 – 16:30 h	Constitutive modelling for gas transfers in geomaterials <i>Sebastia Olivella, Universitat Politècnica de Catalunya</i>
16:30 – 16:45 h	Closure

## Day 3 | Friday, January 24, 2020

09:00 – 10:00 h	In situ testing at high temperature   Poorly indurated clays <i>Xiang-Ling Li &amp; Arnaud Dizier, EURIDICE</i>
10:00 – 11:00 h	In situ testing at high temperature   Crystalline rocks <i>VTT</i>
11:00 – 11:30 h	Coffee break
11:30 – 12:30 h	In situ testing of gas transfer   Crystalline rocks <i>Patrik Sellin, Svensk Kärnbränslehantering AB</i>
12:30 – 13:30 h	Lunch
13:30 – 14:30 h	In situ testing of gas transfer   Clayey rocks <i>Jean Tallandier &amp; Rémi de la Vaissière, ANDRA</i>
14:30 – 15:00 h	Challenges and open questions   Numerical and experimental investigations on gas and high temperature <i>Xavier Sillen &amp; Robert Charlier, Université de Liège</i>
15:00 – 15:30 h	Feedback of the participants at the end of the school
15:30 – 16:00 h	School closure