



# EGW 2020

8<sup>th</sup> EUROPEAN GEOTHERMAL WORKSHOP  
Online, 7 - 8 October 2020

DAY 1: Wednesday, 7 October 2020

08:30 WELCOME STATEMENT - *J. Schmittbuhl, T. Kohl, I. Berre, A. Kushnir*

09:00 KEYNOTE SPEECH

"Where to drill the next well?" and "How to operate a geothermal system in the most efficient and safe manner"  
presented by *Maren Brehme (Delft University of Technology)*

10:00 SESSION 1: ASSESSMENT OF GEOTHERMAL RESOURCES

A review of the petrophysical properties of the granite reservoir and overlying sedimentary units (Buntsandstein and Muschelkalk) from the Soultz-sous-Forêts geothermal site (France)

*M. Heap, A. Kushnir, M. Villeneuve, P. Baud*

Estimation of geothermal potential for an Enhanced Geothermal System taking into account geological uncertainty and the risk of induced seismicity: a case study in Acoculco, Mexico

*E. Peters, T. Candela, B. Lepillier, H. Hofmann, P. Deb, M., Kruszewski, W. Wheeler, E. Bastesen, E. Trumpy, L. Weydt, K. Baer, I. Sass, J-D. Van Wees*

Natural isotopes as tracers for the evaluation of Mae Chan fault zone geothermal system in Northern Thailand

*M. Yongprawat, R. Taherdangkoo, M. Sauter, B. Wiegand*

Microanalytical Analysis of Reservoir Scaling in Fractured Geothermal Systems

*D. McNamara, A. Scully, J. Gardner*

Thermo-reporting nanoparticles for accurate sensing of geothermal reservoir conditions

*J. Berson*

Conceptual model of heat transfer near volcanic geothermal heat sources

*S. Halldorsdottir, I. Berre, E. Keilegavlen, G. Axelsson*

11:00 BREAK

11:15 SESSION 1: ASSESSMENT OF GEOTHERMAL RESOURCES, Continued

3DHIP-Calculator. A new tool for developing deep geothermal resource assessments from 3D models using the 'Heat-In-Place' method and Monte Carlo simulations. Preliminary results in the Empordà Basin case study, (NE Catalonia) - GeoERA HotLime project.

*G. Piris, I. Herms, A. Gríera, E. Gómez, M. Colomer, G. Arnó*

The Value of performing Play Based Evaluation in Geothermal Resource Assessment and Development

*R. Munnee, T. Rasmussen*

11:35 SESSION 2: EXPLORATION OF GEOTHERMAL RESERVOIRS

Numerical simulation on kilometer-scale fault-related thermal anomalies in tight gas sandstones

*G. Yan, S. Held, M. Gholami Korzani, T. Kohl*

Geochemistry characteristic of Southern hot springs, Thailand

*P. Klamthim*

fLUXtec./ project - Surveying natural gas emissions in geothermal exploration

*A. Jentsch, E. Jolie*



Université  
franco-allemande  
Deutsch-Französische  
Hochschule



11:35 SESSION 2: EXPLORATION OF GEOTHERMAL RESERVOIRS, Continued

**Geothermal Exploration Program for the DeepStor Project**

*E. Schill, T. Kohl, L. Houpt, F. Bauer, J. Grimmer, N. Cornejo, K. Stricker*

**Review on the Exploration and Development of Yangyi Geothermal Reservoir**

*H. Shao*

12:30 **LUNCH BREAK**

13:30 KEYNOTE SPEECH

**A triggered seismic swarm below the city of Strasbourg, France in November 2019**

*presented by Jean Schmittbuhl (Institut de Physique du Globe de Strasbourg)*

14:30 SESSION 3: CONSTRUCTING GEOTHERMAL WELLS

**Hydro-mechanical modeling of the year 2000 hydraulic stimulation of GPK2 well, Soultz-sous-Forêts, France**

*D. Javani, J. Schmittbuhl*

**Optimising deep geothermal drilling efficiency with respect to wellbore stability**

*F. Iversen, J. Diessl, R. Freifer, M. Shuttlewood, N. O'Neill, D. Lewis, L. Gerbaud*

14:50 SESSION 4: RESERVOIR ENGINEERING

**The evolution of fracture stiffness during constant and progressive cyclic loading**

*C. Kluge, G. Blöcher, H. Hofmann, A. Barnhoorn, J. Schmittbuhl, D. Bruhn*

**Fracture-matrix system under normal stress: The evolution of specific stiffness and permeability**

*G. Blöcher, C. Kluge, M. Cacace, J. Schmittbuhl*

**How well can we predict hydraulic fracture initiation and propagation in low-permeability rocks?**

*P. Deb, S. Salimzadeh, D. Vogler, S. Düber, R. R. Settgast, C. Clauer*

**Fault Activation by Repeated Fluid Injection: Case Study of the Enhanced Geothermal System at Rittershoffen, France**

*R. Köpke, O. Lengliné, E. Gaucher, J. Schmittbuhl, T. Kohl*

15:30 **BREAK**

15:45 SESSION 4: RESERVOIR ENGINEERING, Continued

**3D Geomechanical Modelling of the Rhein-Ruhr Metropolitan Region - An Assessment of Fault Reactivation Risk**

*M. Kruszewski, G. Montegrossi, T. Backers, E. H. Saenger*

**Active cross-well survey at the geothermal site Schäftlarnstraße**

*J. Azzola, E. Gaucher, K. Thiemann, U. Steiner, M. Meinecke*

**Numerical based filtering concept for feasibility evaluation and reservoir performance enhancement of hydrothermal doublet systems**

*M. Gholami Korzani, S. Held, T. Kohl*

**Utilizing oil and gas industries' capabilities in exploring deep supercritical geothermal reservoir rocks**

*N. Bist, A. Sircar*

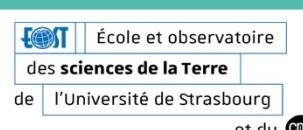
16:30 KEYNOTE SPEECH

**Hydrothermal alteration research in geothermal systems: any news for the future?**

*presented by Diego Morata (Universidad de Chile)*



Université  
franco-allemande  
Deutsch-Französische  
Hochschule





# EGW 2020

8<sup>th</sup> EUROPEAN GEOTHERMAL WORKSHOP  
Online, 7-8 October 2020

DAY 2: Thursday, 8 October 2020

09:00 KEYNOTE SPEECH

**Taking the Heat Out of Geothermal: Geocommunication lessons from United Downs, SW England**  
*presented by Iain Stewart (University of Plymouth)*

10:00 SESSION 5: ENERGY CONVERSION SYSTEMS

**Heat storage in depleted hydrocarbon reservoirs of the Upper Rhine Graben**

*K. Stricker, J. Grimmer, R. Egert, J. Bremer, M. Gholami Korzani, E. Schill, T. Kohl*

**Thermal Performance Tests of Borehole Heat Exchangers with different lengths installed in a geothermal field**

*F. Tang, H. Nowamooz*

**Design and optimization of geothermal binary plants: focus on methodology**

*D. Alfani, M. Binotti, P. Bombarda*

10:30 SESSION 6: OPERATION OF GEOTHERMAL SYSTEMS

**GeoLaB - Geothermal Laboratory in the Crystalline Basement**

*T. Kohl, E. Schill, F. Wenzel, M. Kühn, O. Kolditz, I. Sass*

**2017-2019 hybrid micro-gravity monitoring of the Theistareykir geothermal field (North Iceland)**

*N. Portier, J. Hinderer, F. Schäfer, K. Erbas, P. Jousset, A. Günter, V. Drouin, L. Siqi, F. Sigmundsson, I. Magnússon, G. Páll Hersir, K. Ágústsson, Á. Guðmundsson, E. Juliusson, H. Hjartasson, J-D. Bernard*

**Effect of Acidizing on Permeability, Strength and Stiffness of Veined Greywacke**

*M. Villeneuve, M. Heap*

11:00 **BREAK**

11:15 SESSION 7: SUSTAINABILITY, ENVIRONMENT, REGULATION FRAMEWORK AND SOCIAL ACCEPTABILITY

**Added value of local geothermal resources utilization**

*K. Kurek*

**Co-design of an implementation concept for a deep geothermal energy project at the Karlsruhe Institute of Technology**

*M. Mbah, C. Rösch, S. Kuppler, J. Krohn, C. Benighaus, E. Schill, K. Schätzler, F. Bauer*

**Life-cycle assessment of geothermal district heating and cooling networks**

*A. S. Pratiwi, E. Trutnevite*

**Use of co-produced waters from oil wells located in the Peruvian jungle to generate electricity through a Geothermal Binary Cycle Technology**

*H. Melgar, F. Cuestas, R. Torres, J. Porlles*

**Newspaper framing of deep geothermal projects in Alsace, France (2014-2019): news narratives at the service of promoters**

*Y. Serrano, E. Franco, P. Chavot, J. Zoungrana, A. Masseran*

**Improving companies' engagement strategies with communities. Evidence from an Italian company in geothermal developments**

*F. Iannone, M. Contini, E. Annunziata, F. Rizzi, M. Frey*

**CROWDTHERMAL: Community-based development schemes for geothermal energy**

*I. Fernandez*



Université  
franco-allemande  
Deutsch-Französische  
Hochschule



12:30 LUNCH BREAK

13:30 SPECIAL SESSION

**Research community contribution to the Deep Geothermal Implementation Working Group**  
*led by Olga Sumińska-Ebersoldt (Karlsruhe Institute of Technology)*

14:30 SESSION 8: MODELLING AND DATA MANAGEMENT

Aspects of charge balance in modeling reactive transport of aqueous species in porous media

*P-W. Huang, B. Flemisch, C-Z. Qin, M. Saar, A. Ebigo*

Intelligent model for prediction of methane solubility in marine environments

*R. Taherdangkoo, H. Yang, V. Cao, M. Taherdangkoo, M. Sauter*

Effect of fracture closure on hydraulic diffusivity

*Q. Deng, J. Schmittbuhl, G. Blöcher*

Stochastic evaluation of the flow regime on rough and sheared fractures

*R. Egert, F. Nitschke, M. Gholami Korzani, T. Kohl*

Source parameters of the M13.0 Strasbourg Earthquake (12th November 2019)

*K. Drif, O. Lengliné, S. Lambotte, J. Kinscher, J. Schmittbuhl*

Investigation of the Uncertainties in the Thermal Modeling of the RN-15/IDDP-2 Well in Iceland

*J. Wang, F. Nitschke, E. Gaucher, T. Kohl*

15:30 BREAK

15:45 SESSION 8: MODELLING AND DATA MANAGEMENT, Continued

Modelling and minimisation of the thermal interference effect of neighbouring geothermal licenses

*A. Alem, S. Saeid, A. Daniilidis, D. Bruhn*

Upscaling of Geothermal Processes in Heterogeneous Formations: Application of Thermal Taylor Dispersion

*J. Tang, W. R. Rossen*

Sensitivity analysis of an iterative ensemble Kalman filter method to interpret geothermal well logging

*N. Jahani, J. Ambia Garrido, S. Alyaev, K. Fossum, E. Suter*

How well do we know our models?

*D. Degen, K. Veroy, M. Cacace, M. Scheck-Wenderoth, F. Wellmann*

Data relative to recent geothermal exploration sites in Alsace

*M. Turlure, M. Schaming, M. Grunberg, J. Schmittbuhl*

The EPOS Anthropogenic Hazards platform (TCS-AH) : a virtual laboratory for geothermal studies

*M. Schaming, M. Turlure, J. Schmittbuhl, A. Blanke, J. Kocot*

17:00 KEYNOTE SPEECH

Making geothermal commercially viable in Canada – Alberta No.1: A direct use and power project near Grand Prairie, Alberta

*presented by Catherine Hickson (Alberta No. 1)*

18:00 CLOSING REMARKS



Université  
franco-allemande  
Deutsch-Französische  
Hochschule

