

migration pathways for UCG contaminants such as organic and inorganic pollutants. Mitigation of potential environmental UCG impacts can be achieved by improving the understanding of coupled thermo-hydro-mechanical processes in the rocks surrounding the UCG reactor. In the present study, a coupled thermo-mechanical (TM) model has been developed to carry out a parameter sensitivity analysis and assess permeability changes derived from volumetric strain increments in the UCG reactor overburden. Our simulation results demonstrate that TM rock behavior is mainly influenced by the thermal expansion coefficient, tensile strength and elastic modulus of the surrounding rock. A comparison of temperature-dependent and -independent simulation results indicates high variations in the distribution of total displacements in the UCG reactor vicinity related to thermal stress, but only negligible differences in permeability changes. Hence, temperature-dependent TM parameters have to be considered in the assessment of near-field UCG impacts, while far-field models can achieve a higher computational efficiency by using temperature-independent TM parameters. Considering the findings of the present study in the large-scale assessment of potential environmental impacts of UCG, representative coupled simulations based on complex 3D large-scale models become feasible.

Quaternary tectonics, regional structure and of reverse fault N100° of Djebel Kellal mount, Constantine area (north-east of Algeria)

Laziz Ouided, Boularak Moussa, Benabbas Chaouki
Constantine University Algeria

ouidedlaziz@gmail.com
Poster in Session A2-01

Djebel Kellal is one of Constantine cretaceous mount limiting the basin of HammaBouziaine (Northern Constantine). On the geological map and satellite photo, this monocline Cretaceous series is a transverse structure (East-West), this particular structure (perfect linearity of carbonate series, and implementation of Triassic formations)

gives a deep neotectonic structure appearance limiting Constantine neritic. Nearly 4km long, This carbonated series showed a variation of dips from 0 ° to 90 °, collapses shoals, quaternary formations instabilities, geotechnical anomalies (the thickness of neritic carbonates observed during the excavation of the tunnel), it pushed us to apply the model of a system of reverse fault dipping slope (M.Mattawer, 1973) which is in contradiction with the classical structural diagram presented by JM, Vila (1974) in this region. To the east of this mount, the Plio-Quaternary travertines of HammaBouziaine is bounded by vertical faults N100°. At the regional level, this structure is identified in a morphostructural map (from aerial photo) made on the Constantine region, it is a segment of transversal structure limiting Constantine's shelf. Keywords: neotectonic Jebel Kellal neritic Constantine, seismic structure, reverse fault.

Current Status and Future Plans of re3data.org - Registry of Research Data Repositories

Heinz Pampel, Paul Vierkant
Library and Information Services (LIS), GFZ German Research Centre for Geosciences, Potsdam, Germany

paul.vierkant@gfz-potsdam.de
Poster in Session C3

In 2012 re3data.org – the Registry of Research Data Repositories [1] went online with 23 entries. Three years later the registry provides researchers, funding organizations, libraries and publishers with over 1,200 listed research data repositories from all over the world making it the largest and most comprehensive online catalog of research data repositories on the web. re3data.org provides detailed information about research data repositories, and its distinctive icons help researchers easily identify relevant repositories for accessing and depositing data sets. Funders like the European Commission [2] and research institutions like the University of Bielefeld [3] recommend the use of re3data.org in their guidelines and policies. Project partners in re3data.org are the Library and Information

Services department (LIS) of the GFZ German Research Centre for Geosciences, the Computer and Media Service at the Humboldt-Universität zu Berlin, the Purdue University Libraries and the KIT Library at the Karlsruhe Institute of Technology (KIT). re3data.org will be included in DataCite's suite of services by the end of 2015. The poster describes the current status and the future plans of re3data.org - Registry of Research Data Repositories.

[1] Pampel H, et al. (2013) Making Research Data Repositories Visible: The re3data.org Registry. PLoS ONE 8(11): e78080. doi:10.1371/journal.pone.0078080. Available: <http://doi.org/10.1371/journal.pone.0078080> Accessed 26 March 2015

[2] European Commission (2003): Guidelines on Open Access to Scientific Publications and Research Data in Horizon 2020. Available: http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf Accessed 26 March 2015.

[3] Bielefeld University (2013): Resolution on Research Data Management. Available: <http://data.uni-bielefeld.de/en/resolution> Accessed 26 March 2015.

Activities of the Centre for Early Warning Systems, GFZ Potsdam

Stefano Parolai, Joern Lauterjung, Dino Bindi, Massimiliano Pittore, Marc Wieland, Toby Boxberger, Marco Pilz, Annamaria Saponaro, Shahid Ullah, Bojana Petrovic, Michael Haas, Kevin Fleming
GFZ German Research Centre for Geosciences, Potsdam, Germany

parolai@gfz-potsdam.de
 Poster in Session B3-01

The Centre for Early Warning Systems of GFZ Potsdam is setting out develop and implement methodologies for the early warning of various types of natural hazards, with a focus currently on earthquakes and tsunami. Of particular interest is the feasibility of alarm systems that accommodate multi-risk aspects of natural disasters. One avenue pursued in this direction is the development of

low-cost units that can incorporate a variety of sensors, and may be used in activities ranging from long-to-short term environmental monitoring and the assessment of structural response of buildings to different loading. The centre's research is also directed towards the assessment of the vulnerability of exposed assets through advanced methods, mainly based on remote sensing, and the possibility of computing reliable real-time single- and multi-type risk scenarios that can be provided to end users in order to help in the decision making process within disaster prevention and for disaster management. An example of the activities being undertaking is the SIBYL (Seismic monitoring and vulneraBilitY framework for civili protection) project, supported by EC-ECHO, which is setting out to develop an operational framework for Civil protection authorizes to rapidly and cost-effectively assess the built environment's seismic vulnerability. This includes short-notice vulnerability assessment in a pre-event situation (instrumentation, in situ and space-based damaging) and monitoring the built environment during a seismic sequence. Another example of a so-called "end-to-end" system approach is the successful operating tsunami early warning system in the Indian Ocean, GITEWS (German Indonesian Tsunami Early Warning System).

Petrophysical and geoelectrical investigations on analogue outcrops of the South German Malm

Nicole Pastrik¹, Katharina Bairlein²
 (1) *GFZ German Research Centre for Geosciences, Potsdam, Germany;* (2) *German Technische Universität Braunschweig, Braunschweig, Germany*

nicole.pastrik@gfz-potsdam.de
 Poster in Session B5-02

Since 2008 a lot of drilling campaigns in the hydraulic porous eastern part of the Upper Jurassic limestones occurred. In the low quality rocks of the western part of the Bavarian foreland Molasse much less drillings to understand geologic controls on parameters which are important for reservoir evaluation were implemented. Nonethe-