

Workshop on Induced Seismicity Program

02./03. November 2023
Munich, Germany

Organized by:

FKPE working group on induced seismicity (AGIS)

Department of Earth and Environmental Sciences, Ludwig-Maximilians-Universität

Regierung von Oberbayern – Bergamt

Geothermie-Allianz Bayern

Venue:

Regierung von Oberbayern

Maximiliansaal (6th floor)

Maximilianstraße 39

80538 München

We recommend traveling by public transport. The closest subway station is station "Lehel" of subway lines lines 4 and 5. There is no parking area at the venue. The closest parking deck (parking fees applicable) is "Hofbräuhaus" (<https://bavaria-parkgaragen.de/facility/am-hofbraeuhaus-altstadt/>).

Thursday, 02.11.2023 (13:00 – 18:00)

13:00 Opening Message

Workshop Oral Session 1 (13:10 – 15:00)

13:10 – 13:30 Seismicity at and Monitoring Concepts for Geothermal Projects in Bavaria, Tobias Megies (LMU München)

13:30 – 13:50 Earthquakes caused by cooling geothermal reservoirs, Stefan Baisch and Robert Vörös (Q-con)

13:50 – 14:00 Seismic monitoring and hydrothermal projects in Austria, short talk, Stefan Weginger (GeoSphere Austria)

14:00 – 14:20 Accelerating Geothermal Transition: SIEGFRIED - A New Interdisciplinary Project for Seismic Hazard Assessment in the Lower Rhine Embayment, Alessandro Verdecchia¹, Rebecca Harrington¹, Claudia Finger², Michal Kruszewski³, Jens Hannes⁴, Thomas Oswald⁴, 1: Ruhr University Bochum, 2: Fraunhofer IEG, 3: RWTH Aachen, 4: RWE Power AG

14:20 – 14:40 Modeling seismic and aseismic fault reactivation potential due to deep geothermal energy exploitation, Verdecchia, A., Liu, Y., Harrington, R., Tielke, J., Pederson, C., McCarthy, C., and Kolawale F. (Ruhr-University Bochum)

14:40 – 15:00 Estimation of the probability of maximum earthquakes triggered by geoenergy developments, Serge Shapiro (Freie Universität Berlin)

Break (15:00 – 15:30)

Workshop Oral Session 2 (15:30 – 17:30)

~~15:30 – 15:50 Monitoring induced seismicity in the Upper Rhine Graben using a seismic array, Philip Hering (IGEM) cancelled by author~~

15:50 – 16:10 8 years of relocated seismicity at Insheim: What structures are active? Andreas Rietbrock (KIT)

16:10 – 16:30 Does induced seismicity happen on the faults we know? Steffen Abe (IGEM)

16:30 – 16:50 Depth and frequency-dependent seismic attenuation to estimate seismic moment magnitudes of induced earthquakes, Ulrich Wegler and Marcel van Laaten (FSU Jena)

16:50 – 17:10 Modeling induced seismicity using virtual fracture networks (VFN) - insights from the hydraulic stimulation in the Reiche Zeche (Freiberg) as part of the research project StimTecX, Tobias Meier (geomecon)

17:10 – 17:30 Effective microseismic monitoring at the Quest CCS site, Bettina Goertz-Allmann (NORSAR)

Joint Dinner (19:00)

Augustiner Stammhaus, Neuhauser Str. 27, 80331 München,
www.augustiner-restaurant.com

Friday, 03.11.2023 (09:00 – 14:00)

Workshop Oral Session 3 (09:00 – 10:30)

09:00 – 9:20 Monitoring and No-MoneyToring of Hydrocarbon exploitation in Val d'Agri, Thomas Braun & Stefania Danesi (INGV, Arezzo)

09:20 09:40 Geomechanical analyses of CO2 sequestration in the geological formation of the German North Sea, Hendrawan Diandaru Bayu Aji (CAU Kiel)

09:40 – 10:00 Natural earthquakes in areas of induced seismicity - The example of Northern Germany, Manfred Joswig (Stuttgart)

10:00 – 10:20 Monitoring of seismicity during the flooding of the former Volkenroda/Pöthen potash mine, Tobias Brestrich and Ankitha Pezhery (K-UTEC)

10:20 – 10:30 EPOS TCS Anthropogenic Hazards Consortium introduces the EPISODES Platform, a digital space for research into anthropogenic seismicity, short talk, Anna Leśnodorska (Institute of Geophysics Polish Academy of Sciences)

Break (10:30 – 11:00)

Workshop Oral Session 4 (11:00 – 12:30)

11:00 – 11:20 Recent developments in geothermal energy and related challenges in Belgium, Thomas Lecocq (Royal Observatory of Belgium)

11:20 – 11:40 Assessment of seismic network capabilities in the Netherlands, Elmer Ruigrok (KNMI)

11:40 – 11:50 Extension of the seismic network in the Netherlands for monitoring geothermal operations, short talk, after Elmer, Pauline Kruiver (KNMI)

11:50 How Microseismic Can Contribute To Targeting Superhot EGS Wells At Hengill, Iceland, Bettina Goertz-Allmann (NORSAR)

Break (12:30 – 13:00)

AGIS meeting of members, in German (13:00 – 14:15)