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## CDGP, a data center of EPOS TCS Anthropogenic Hazards, to help analysis of geothermal anthropogenic seismicity

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The Data Centre for Deep Geothermal Energy (CDGP – Centre de Données de Géothermie Profonde, <https://cdgp.u-strasbg.fr>) was launched in 2016 by the LabEx G-Eau-Thermie Profonde - now ITI Géosciences pour la transition énergétique GeoT, <https://iti-geot.unistra.fr/> - to preserve, archive and distribute data acquired on geothermal sites in Alsace. At the moment, it archives and gives access to data from Soultz-sous-Forêts (1988-2010), Rittershoffen (2012-2014) and Vendenheim (2016-2021).

Access to patrimonial data like those from Soultz-sous-Forêts (SSF, 1993, 2000) or from Rittershoffen allows reprocessing of data, validation of new ideas. Cauchie et al. (2020) reinvestigated earthquakes during SSF 1993 stimulation and discussed implications for detecting the transition between events related to pre-existing faults and the onset of fresh fractures. Vallier et al. (2019) used a simplified 2D thermo-hydro-mechanical model of SSF reservoir to infer that the sediments–granite interface has a weak influence on the hydrothermal circulation, or that the brine viscosity has a huge impact on the hydrothermal circulation. Koepke et al. (2020) applied pseudo-probabilistic fracture network method to the seismicity induced during the SSF 2000 stimulation to confirm the existence of a large prominent fault. Drif et al. (2020) used data from Vendenheim area to determine the seismic moment, the source size, the average stress drop and the focal mechanism associated to the M3 event in November 2019.

Some of the CDGP data are also available on the EPOS Thematic Core Service Anthropogenic Hazards platform (<https://tcs.ah-epos.eu/>, Orlecka-Sikora et al., 2020), with other geothermal episodes, and with applications to process and analyse the data. This platform is a functional e-research infrastructure that allows free experimentations in a virtual laboratory, promoting interdisciplinary collaborations between stakeholders (the scientific community, industrial partners and society).

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