



Geophysical observations and structural models of shallow caves in gypsum/anhydrite-bearing rocks in Germany

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In northern Germany, the evaporitic sequence of Zechstein rocks outcrops at several locations, offering insight into both surface and sub-surface morphology of the soluble rocks.

We discuss two field sites, an active shallow gypsum cave in the southern Harz Mountains, and an active shallow anhydrite/gypsum cave close to Bad Segeberg, which both have been explored from the surface by geophysical surveys. The overburden of the caves varies from 5-40 meter, and the caves are characterised by both small passages and larger breakdown chambers.

We relate the indirect geophysical measurements to parts of the known cave systems, and present structural models describing both geometry and groundwater flow in these caves with the help of numerical tools.