1. Context and objectives
The Meuse / Haute Marne Underground Research Laboratory (URL) provides the location for an experiment designed to investigate the induced fracture network around open or sealed drifts.

- One of the aims of this experiment, called the OHZ-experiment, is to study the hydraulic properties of the induced fracture network in order to improve and validate the conceptual model of the fracture network as a function of the stress field.
- In the context of this experiment, many gas permeability tests were performed between nine closely spaced wells.

2. Experiment

Figure 1: The Meuse / Haute Marne Underground Research Laboratory (de la Vaissière et al., 2015, J. Hydrol).

3. Deterministic Inversion

Line integral (geophysical travel time tomography):
\[ t = \int \frac{ds}{\sqrt{V(s)}} \]

Line integral (hydraulic travel time tomography):
\[ \sqrt{t_{\text{peak}}(s_2)} = \frac{1}{\sqrt{V(s)}} \int \frac{ds}{\sqrt{D(s)}} \]
where:
\[ D(s) = \frac{1}{\sqrt{2\pi}} \int ds \]

4. Stochastic DFN Inversion

5. Deterministic results

6. Stochastic results

7. Conclusions

6. References

