NMR measurements on cement

The four videos demonstrate insights that NMR can provide into the secrets of cement. NMR techniques developed by Peter McDonald (link) have been able to produce fundamental new insights to the structure and the hardening process of the world’s most-produced substance. These four videos, span from the basic NMR background to the surprising insights gained.

1. The experiment
   - What happens inside the NMR machine?

2. The analysis
   - 1. What do we learn from the experiment? (Reminder)

3. Drying and wetting
   - 2. Poros space-resolved sorption (de)sorption isotherm

4. Hardening
   - 2. C-S-H properties

Further information:
- Agata’s thesis (click here)
- Arnaud’s thesis (click here)

The four videos are based on the PhD theses of Agata Gajewicz (Surrey) and Arnaud Muller (EPF Lausanne). Both students were supervised by Professor Peter McDonald (Surrey) and Professor Karen Scrivener (EPFL). The videos were made by Merlin Etzold (Surrey).