**ETH-ScopeM\_Concrete**

**Contact**

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**Description**

3D CT scan

**Tasks**

**1. 3D stacks registration**

One of the main task for this project is to spatially register (align) 3D stacks of the same cylinder acquired at different time-points. However, due to inconsistent imaging conditions, basic 2D registration algorithms will not be sufficient to properly align the 3D volumes. Indeed, the stacks are off-center and slightly misaligned compared to the observation axis, as the rod axis is not perfectly parallel to the z-axis. The data also present scaling issues revealed by the varying diameters of cylinders over the different time points.

**A screenshot of a black and white photo

Description automatically generated**

**2. Air voids and filling liquid segmentation**

Once the registration perform

**3. Analysis**