**ETH-ScopeM\_Concrete**

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**Description**

3D stack registration

**Tasks**

**1. 3D stacks registration**

One of the main challenging task for this project is to spatially register (align) 3D stacks of the same cylinder acquired at different time-points. In this particular case, inconsitencies in the imaging conditions require the advanced registration procedure to achieve this task.

First, the stacks are off-centered and sligltly desaligned from the axis of observation

In this particular, the registration procedure requires translation, rotation, scaling transformations since images are off centered,

Air voids and filling water segmentation

Time & distance analysis

A screenshot of a computer screen

Description automatically generated

Figure 1 : Time-points scale and intensity variations