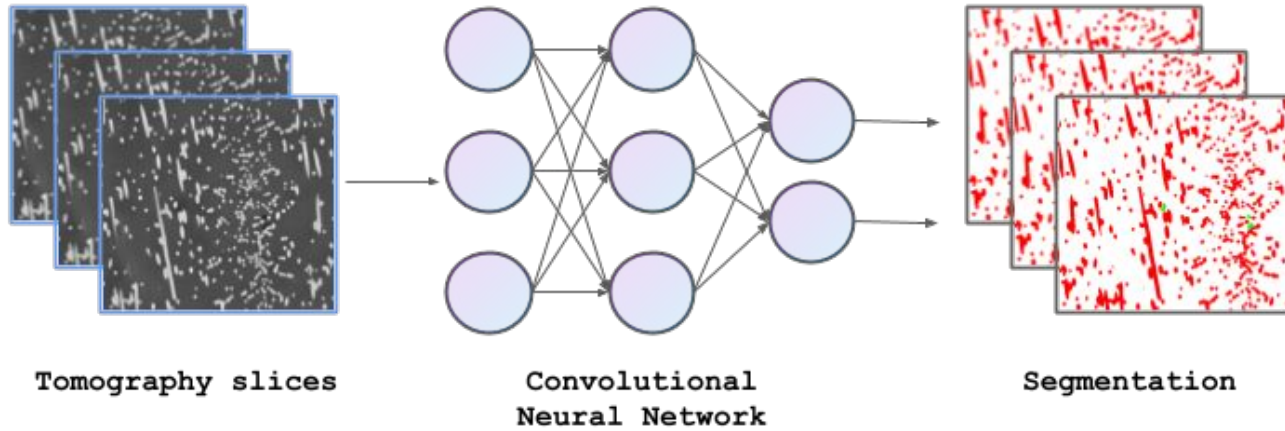


Semantic segmentation of tomography images



Goal Segment an X-ray tomography dataset.

Why? To extract meaningful spatial information from the specimen.

How? Using a neural network model.

What's that? A statistical approach that learn patterns from given examples.

Why? The manual or semi-automated process is tedious and time-consuming (thus costly).

Fatigue fracture 3D segmentation with neural networks

Goal

Segment tomography of a fatigue fracture.

Then what?

Reconstruct the 3D structure of the defect.

What else?

The neural network segments faster than a human, so we could eventually reproduce the experiment in 4D (3D + time) to study the fracture development.

Which neural network?

Planned architectures:

- [2D U-net](#)
- [3D U-net](#)
- [Fully Connected DenseNet](#)

