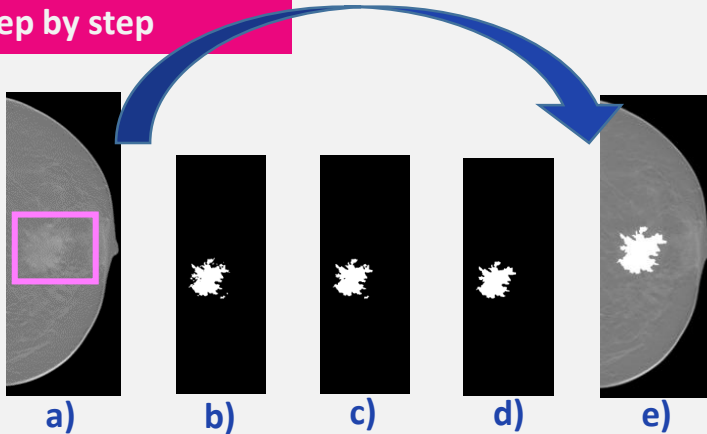


Algorithm for segmentation of tumours from breast tomosynthesis images

Step by step



- a) Choosing region of interest
- b) Obtaining a binary image of the region of interest
- c) Artefact reduction by utilizing mathematical morphology
- d) Employing region growing algorithm for separating the formation
- e) The same image (a) with added segmented malignant formation

Preliminary results



3D visualization of a scaled model of the segmented malignant formation.

Preparation for ESRF research in February



Fig.1 Step Wedges

The MaXIMA team printed 9 Step Wedges from different plastic materials (figure 1). The aim is to study their absorption and scattering characteristics and choose the most suitable for the creation of physical breast prototypes.



Fig.2 Compressed breast model

Several breast models, consisted of an external shape and a glandular tree, in a compressed and uncompressed form were printed (figures 2 & 3). They will be used to validate the compression algorithm by experimental study to be carried out on beamline ID17, ESRF, Grenoble.



Fig.3 Uncompressed breast model



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