Lab session

- Aim:
  - Evaluation measures for segmentation
  - To understand the different ways to evaluate a result: overlap measures vs distance measures
  - Overlap measures
  - Distance measures

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- Material and Methods:
  - Segmentation evaluation in 2D:
    - Open the images you will be provided, which are a mammogram, its manual segmentation, and different segmentations automatically obtained
    - Obtain the ROC curve and the Area Under the Curve for each segmentation. To compute the ROC curve, threshold the probability images at different levels and plot the true positive rate against the false positive rate at each level
    - Compute the Jaccard and Dice coefficients measures at the best threshold (must be the same for all the images of an algorithm)
    - Compute the Hausdorff distance at this threshold

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- Results:
  - Write down a summary of your work, indicating:
    - The Matlab code of each measure
    - A table comparing the results for the 2D analysis. Which algorithm do you think is the best?
    - What evaluation measure do you think is the best?
    - The troubles you have encountered in the assignment
    - Any suggestion to improve the assignment