

Fig. 1: Illustration of manual delineations on three anatomical structures: liver tumor, lung tumor, and kidney contour. Shown are representative axial slices with superimposed manual delineations in which each color shows the delineation of one radiologist.

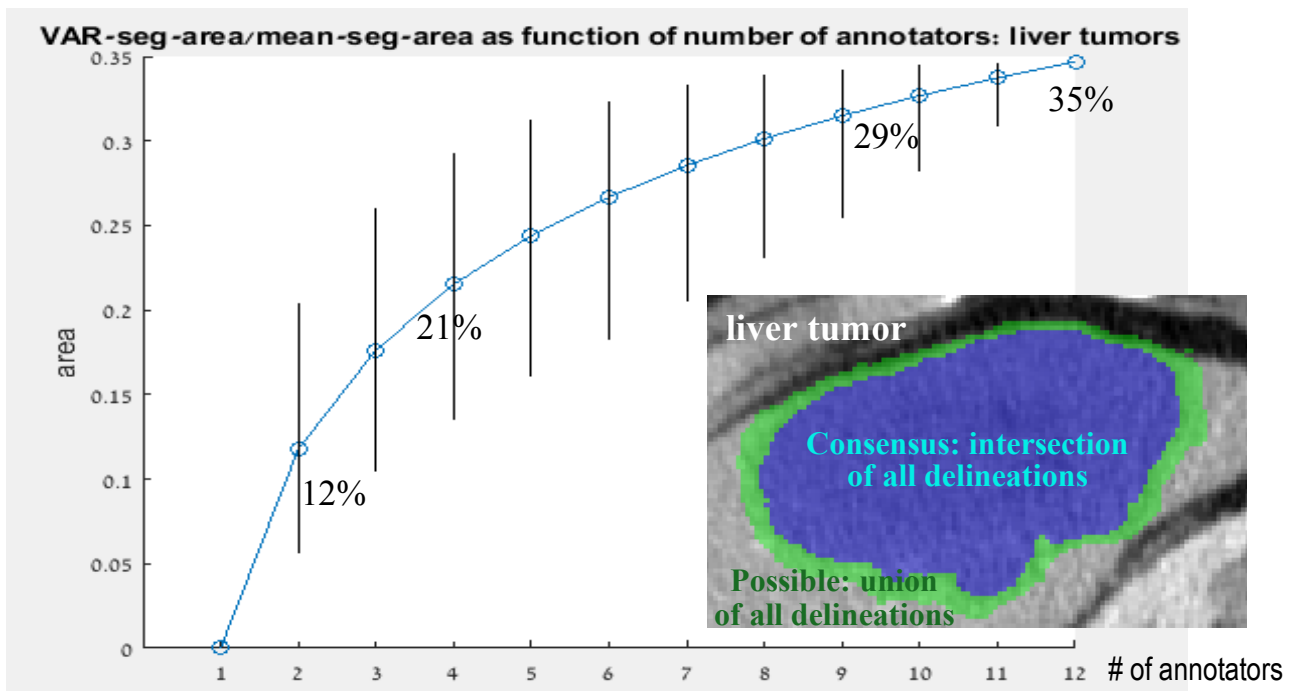


Fig. 2: Graph showing the variability of the liver tumor delineation area in a sample CT slice (insert, lower right) as a function of the number of observers. The area variability is defined as the difference between the union (possible, green) and the intersection (consensus, blue) delineation areas computed from $k = 1, 2, \dots, 12$ observers delineations divided by the mean tumor area from 12 observer delineations computed with the STAPLE method. The vertical bars indicate the observer variability of the k^{th} sub-group (maximum and minimum variability of k observers out of 12).