Tomography reconstruction of

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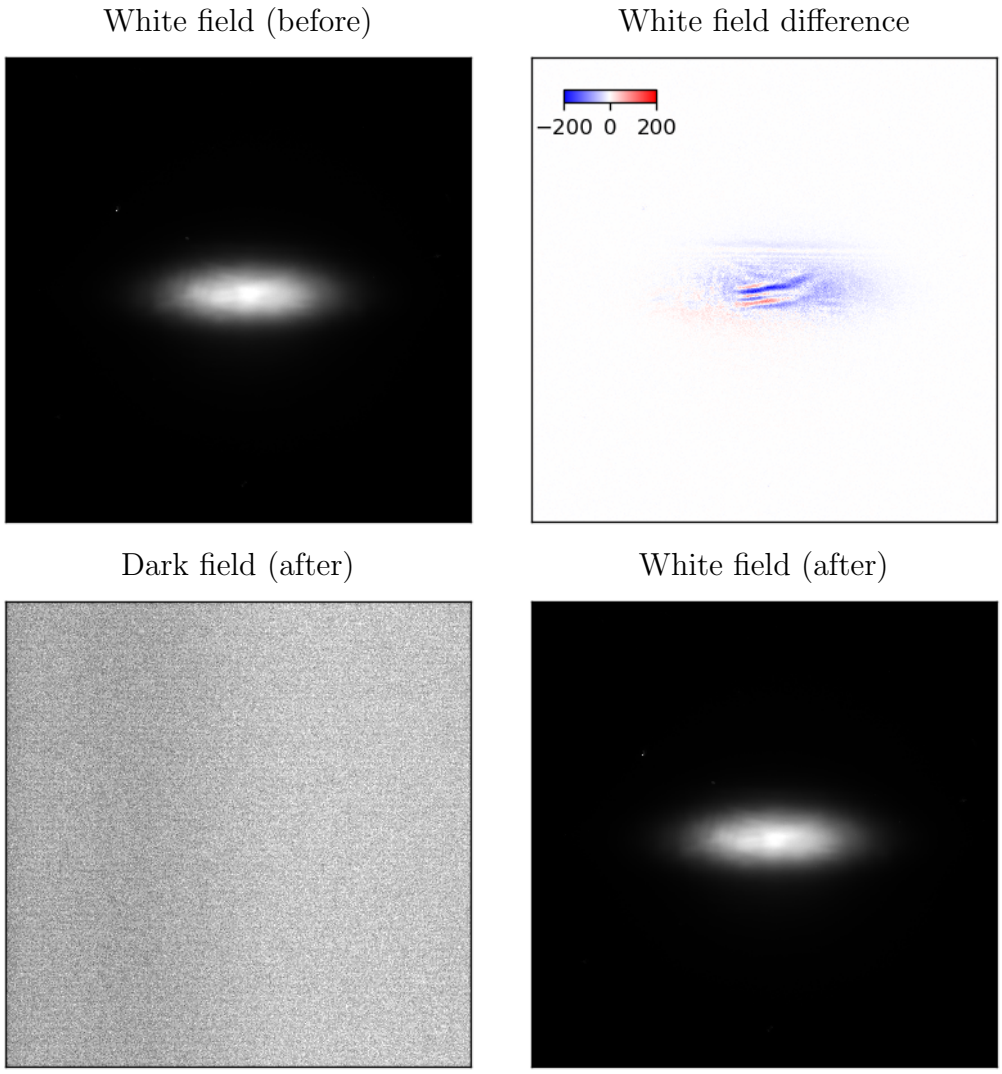

Figure 1: The median of background (white and dark) images collected before and after the tomography scan. The dynamic range of the white field images are $[0, 4000]$ (counts) while the dynamic range of the dark field image is $[0, 10]$ (counts).

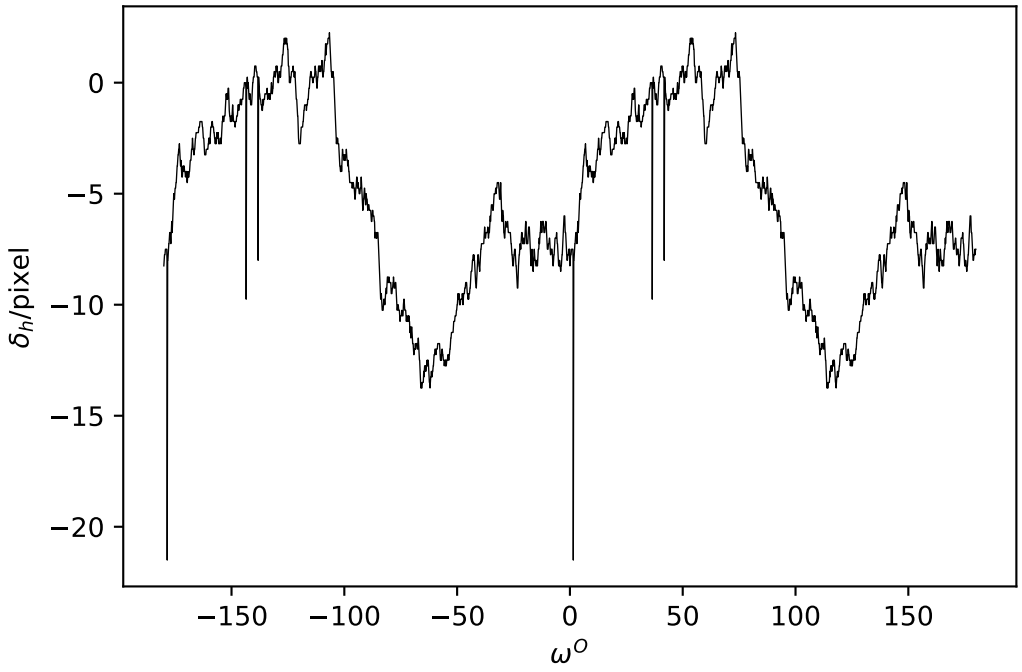

Figure 2: The corrupted frames can be detected by checking the outliers in the profile of 180° pair-wise rotation axis where δ_h denotes the amount of horizontal offset between rotation axis and the image center column.

Figure 3: Three corrupted frames were detected out of the total 3600 frames. Due to the horizontal detector jittering, these corrupted frames and the associated 180° pairs were excluded from the tomography reconstruction as it is not possible to adjust a 180° pair horizontally with one corrupted frame.

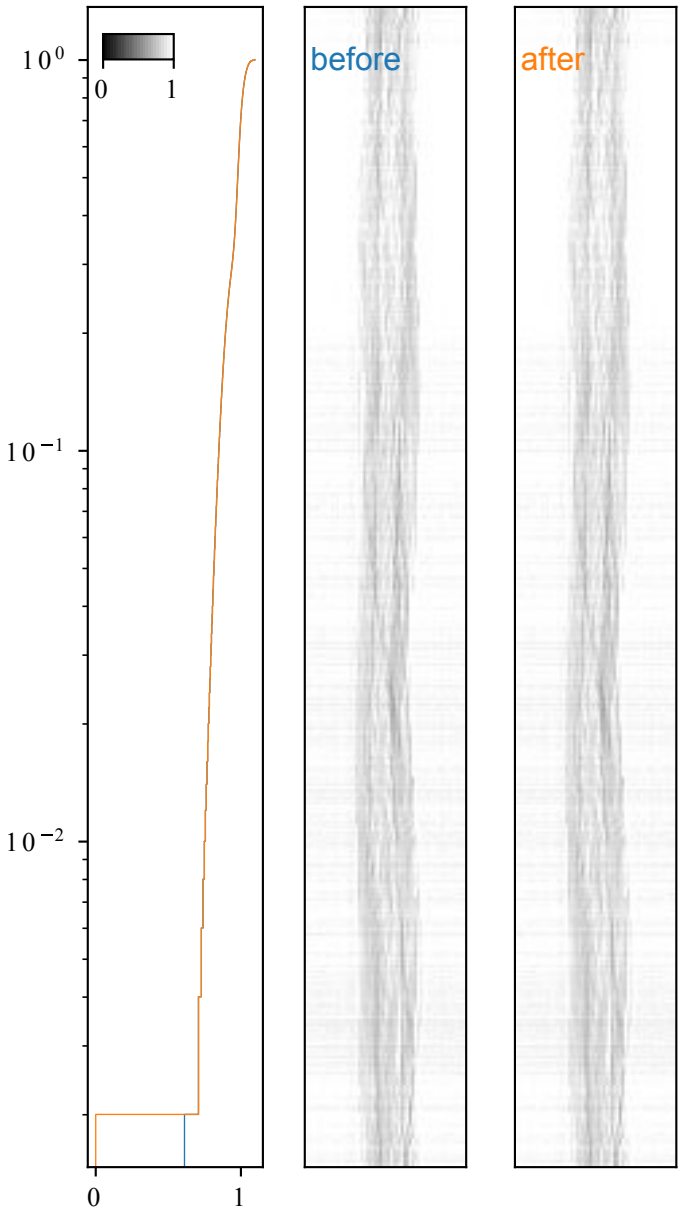

Figure 4: Remove impulse noise from sinogram using selective median filter.

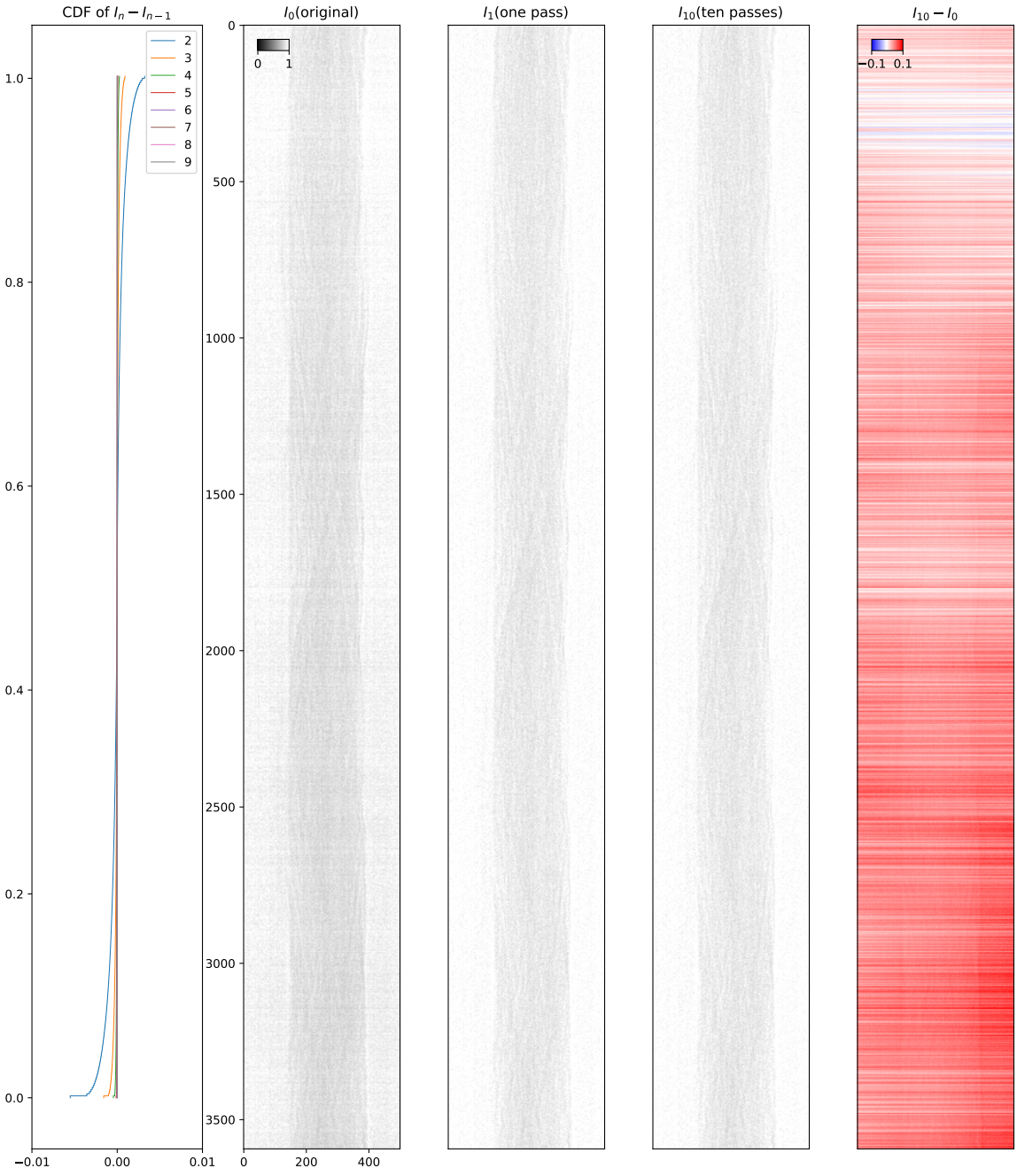

Figure 5: Top region

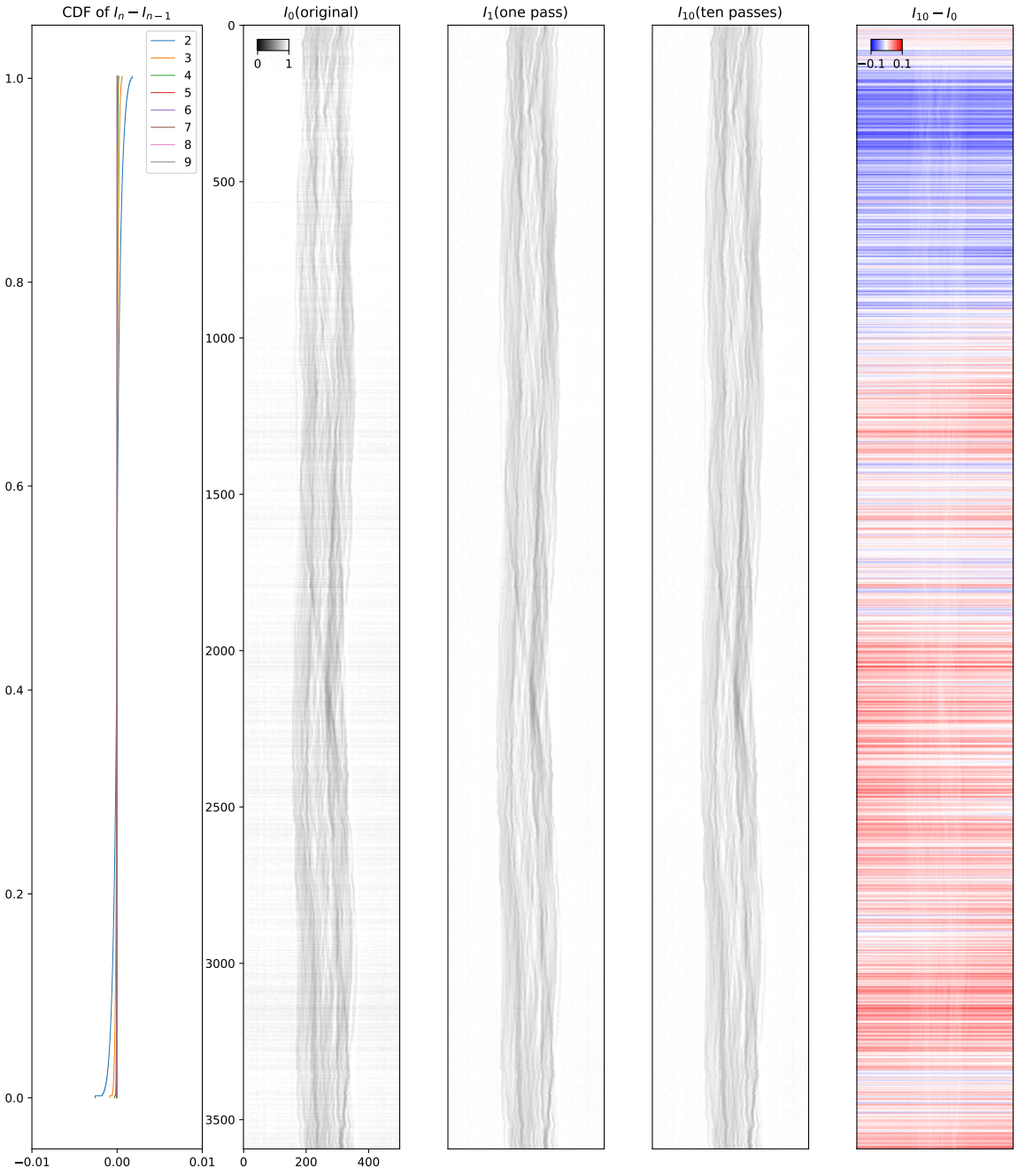

Figure 6: Middle region

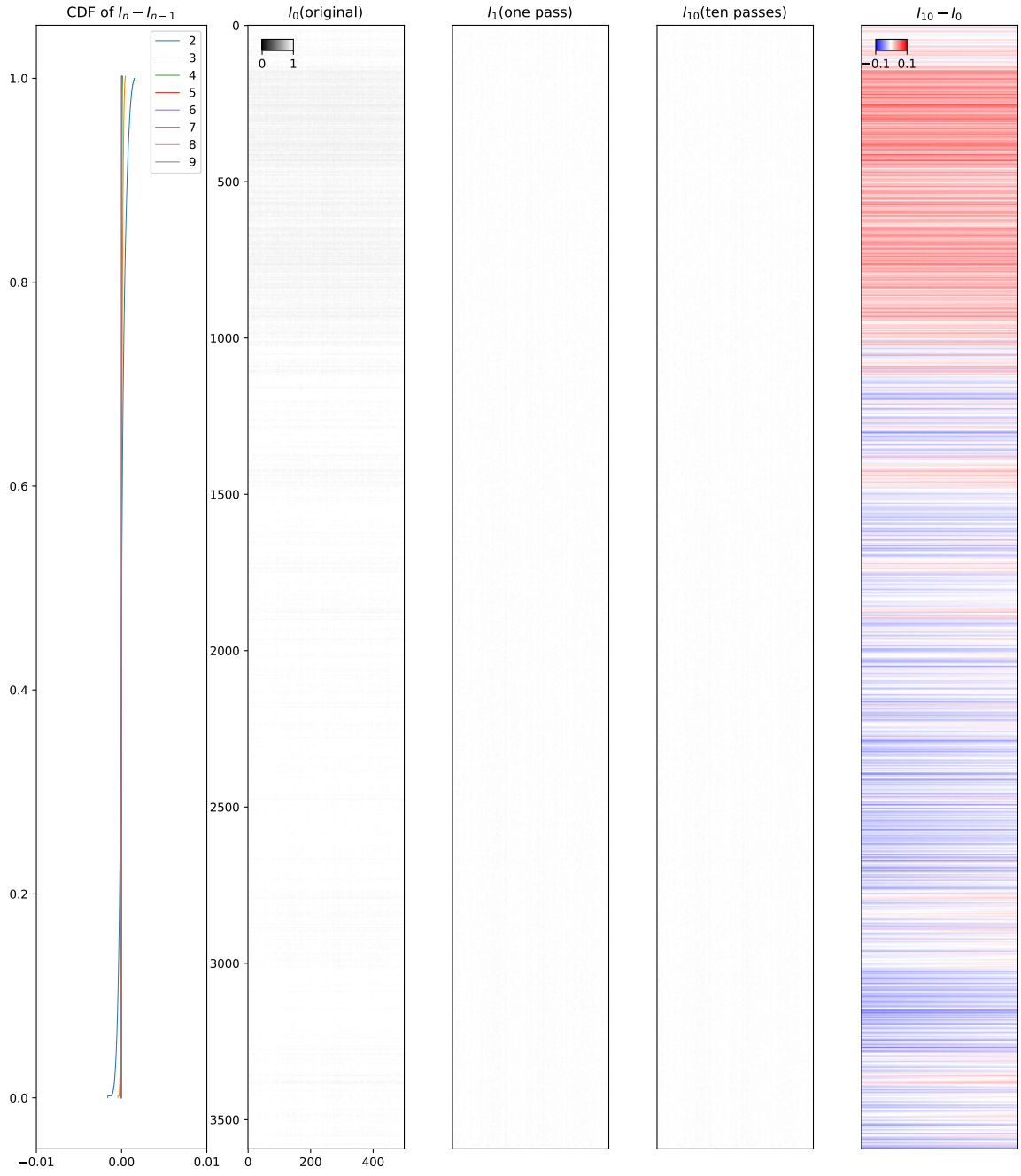

Figure 7: Bottom region

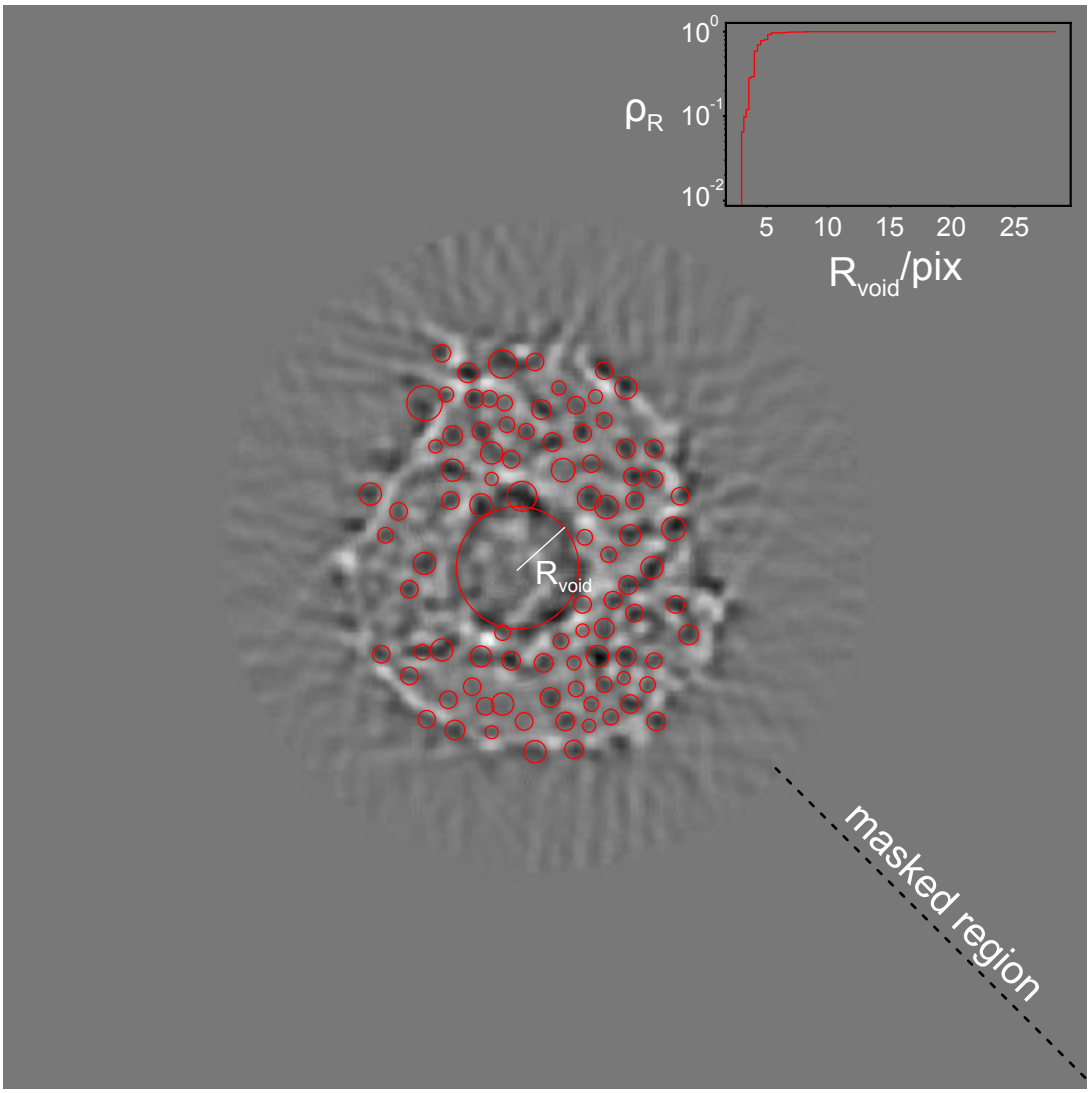

Figure 8: void detection demo

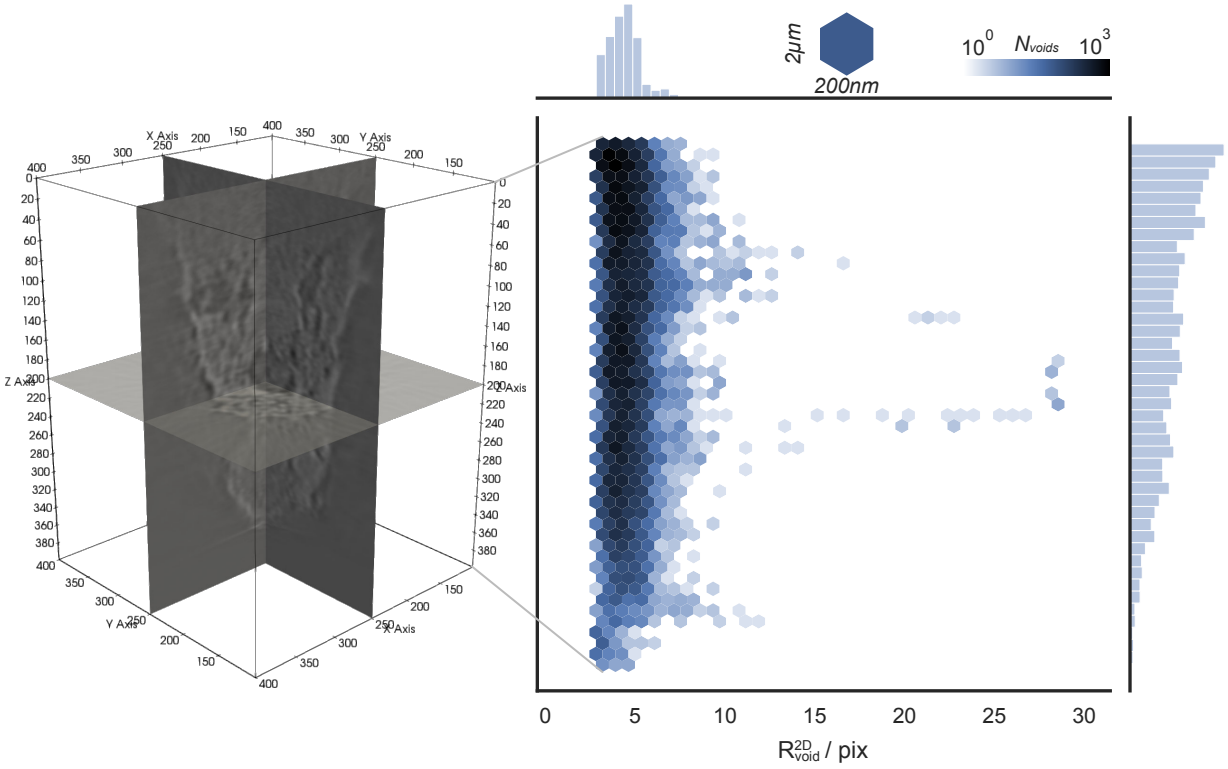

Figure 9: void profile