**Image Analysis**

**Critical Analysis – Denoising of PET Images by Context Modelling Using Local Neighbourhood Correlation**

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Advanced Computer Science

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By

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[Figure 2: This image shows the first figure used in the paper Denoising of PET Images by Context Modelling Using Local Neighbourhood Correlation with the caption of “The autocorrelation function normalised to the maximum pixel value: (a) 2D image, (b) display of matrices of weight for the first level. Diagonal orientation (top) and horizontal (bottom).” (Huerga, et al., 2017). 6](file:///C:\Temp\!!!Work!!!\Semester%202\Image-Analysis\Report\Report%20Template.docx#_Toc512370092)

[Figure 3: This image shows the second table used in the paper Denoising of PET Images by Context Modelling Using Local Neighbourhood Correlation (Huerga, et al., 2017). 7](file:///C:\Temp\!!!Work!!!\Semester%202\Image-Analysis\Report\Report%20Template.docx#_Toc512370093)

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[Figure 13: This image shows the seventh figure used in the paper Denoising of PET Images by Context Modelling Using Local Neighbourhood Correlation with the caption of “Example patient 3; head and neck segmentation (top). Example patient 4; liver segmentation. The images on the left were processed with a 3D extension, the ones on the right were processed without.” (Huerga, et al., 2017). 16](file:///C:\Temp\!!!Work!!!\Semester%202\Image-Analysis\Report\Report%20Template.docx#_Toc512370103)

# Introduction

# Criticism

## Title

## Authors

## Acknowledgements

## Abstract

## Introduction

## Materials and Methods

## Table 1

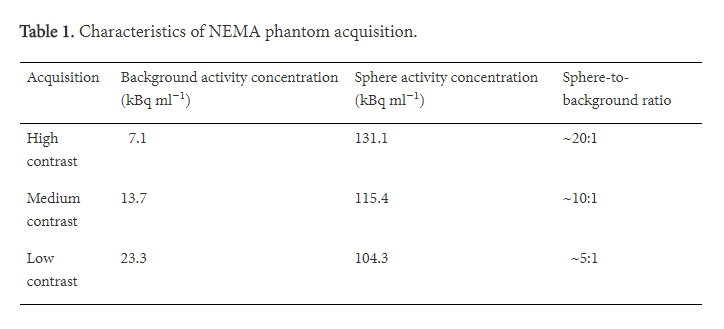


Figure 1: This image shows the first table used in the paper Denoising of PET Images by Context Modelling Using Local Neighbourhood Correlation (Huerga, et al., 2017).

## Results

## Figure 1

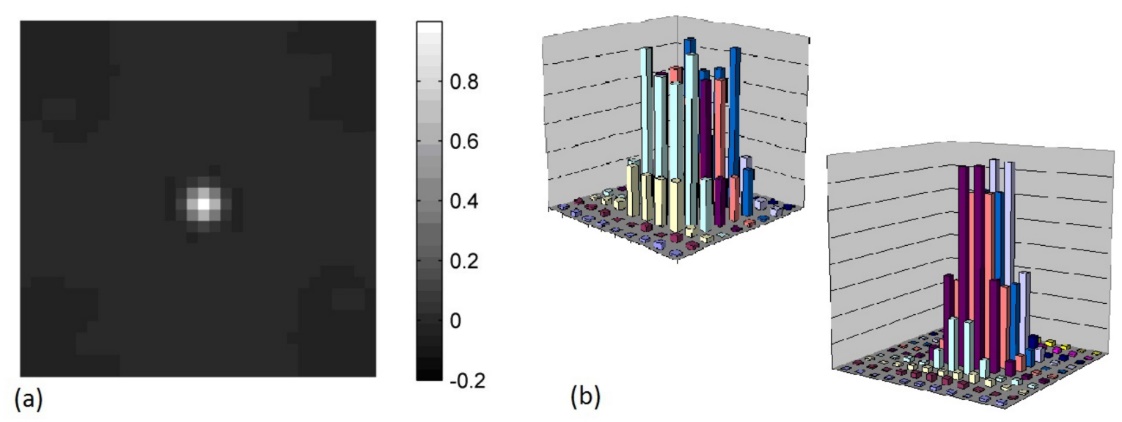


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## Table 2

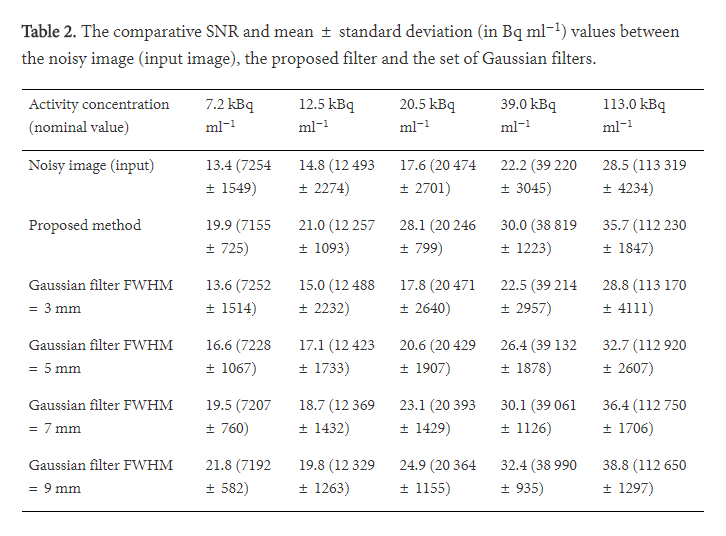


Figure 3: This image shows the second table used in the paper Denoising of PET Images by Context Modelling Using Local Neighbourhood Correlation (Huerga, et al., 2017).

## Figure 2

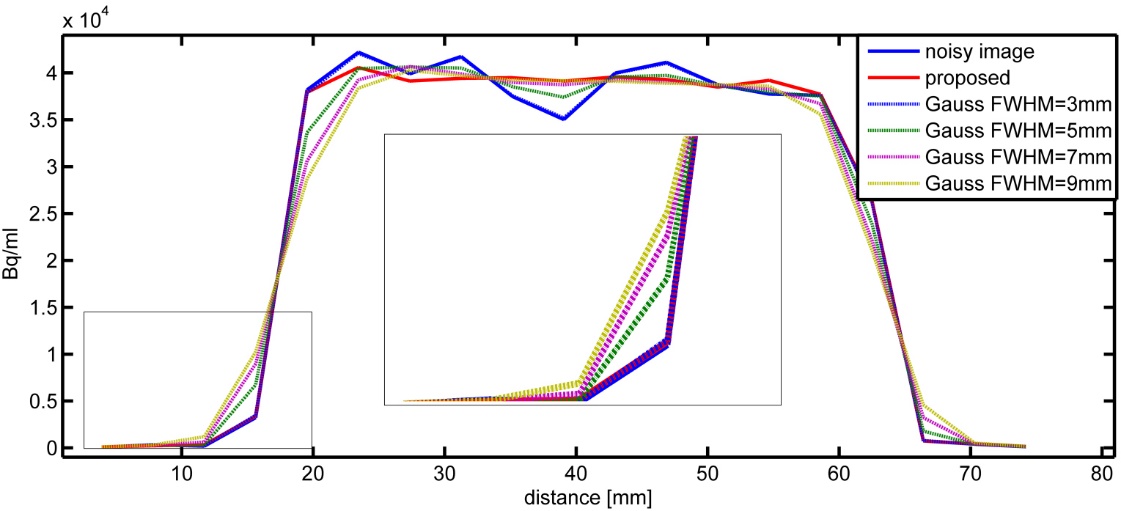


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## Table 3

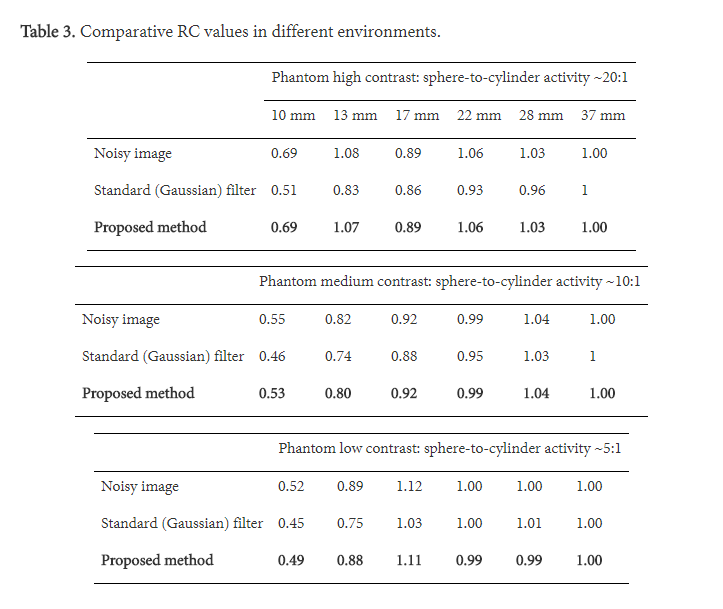


Figure 5: This image shows the third table used in the paper Denoising of PET Images by Context Modelling Using Local Neighbourhood Correlation (Huerga, et al., 2017).

## Table 4

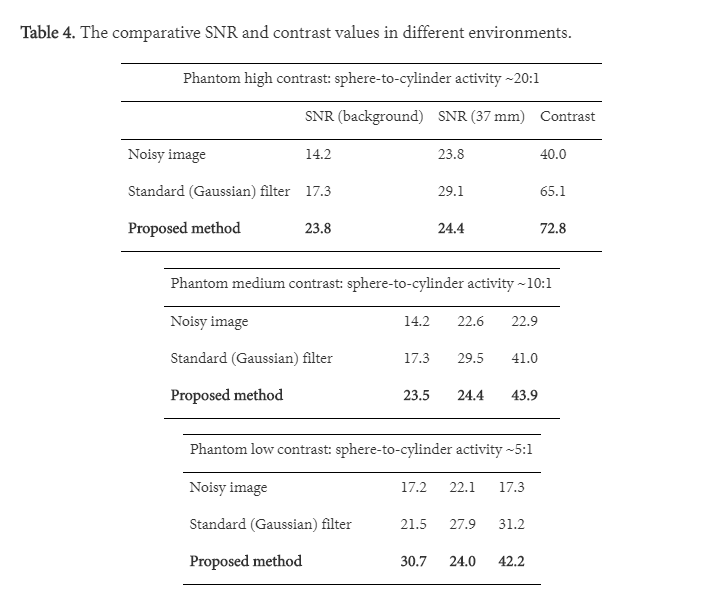


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## Figure 3

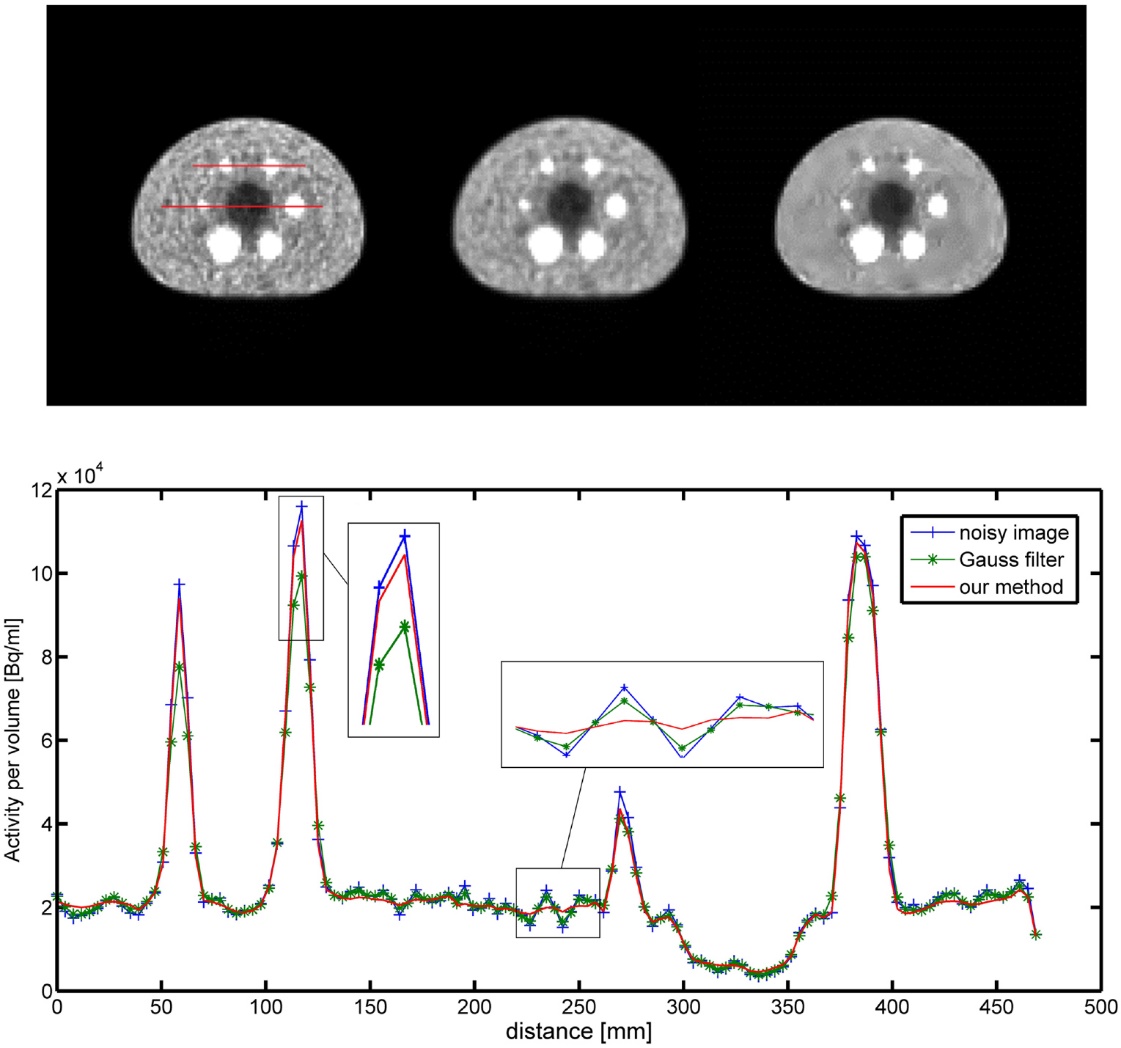


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## Table 5

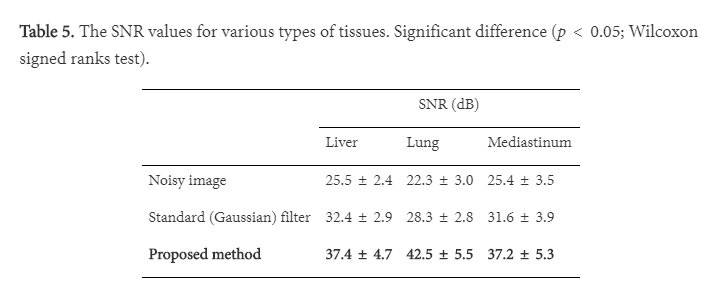


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## Table 6

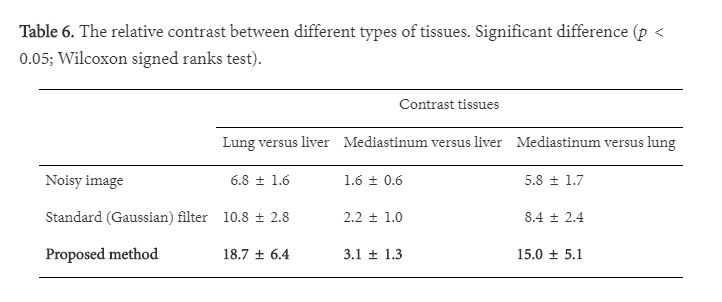


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## Figure 4

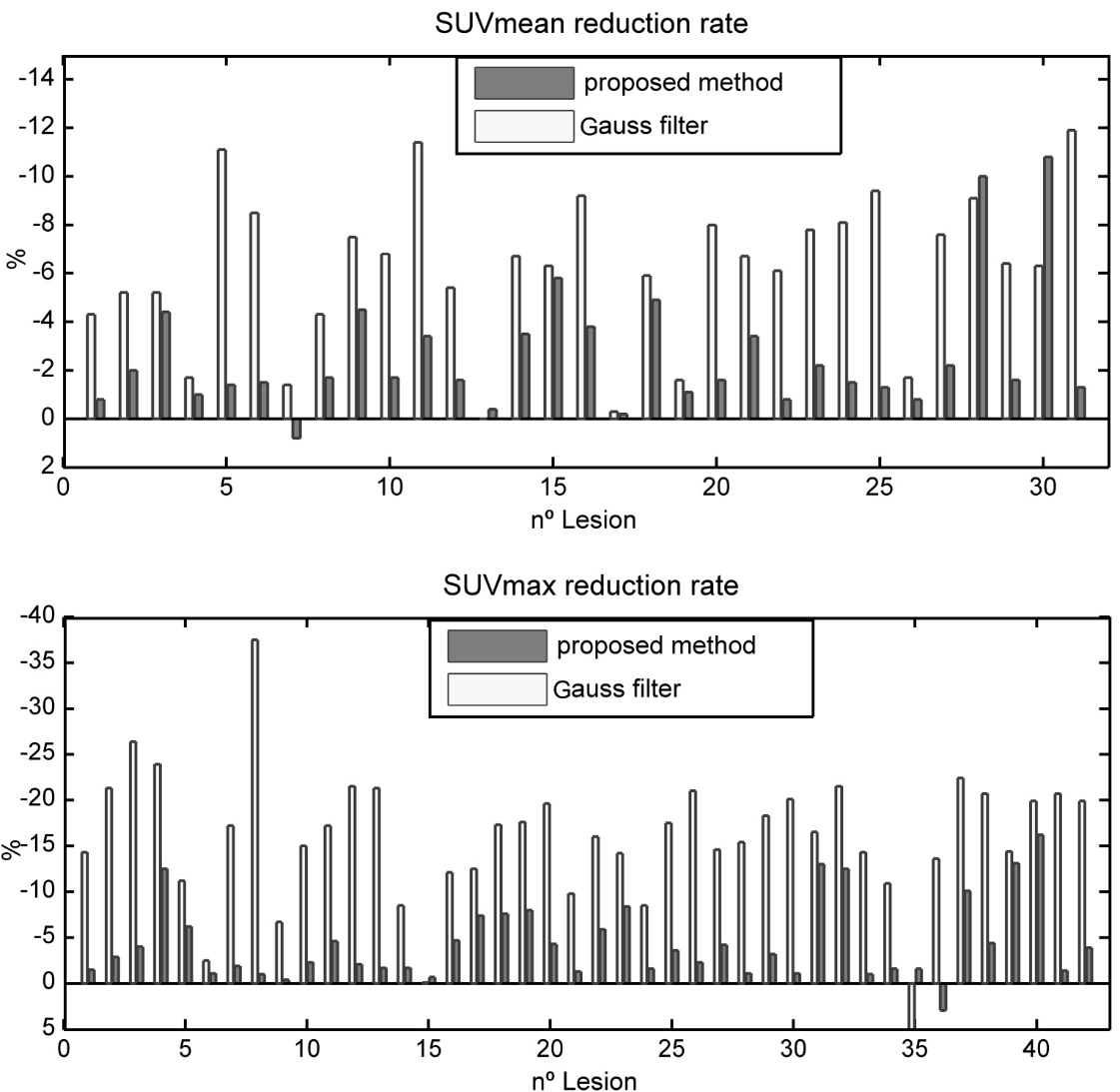


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## Figure 5

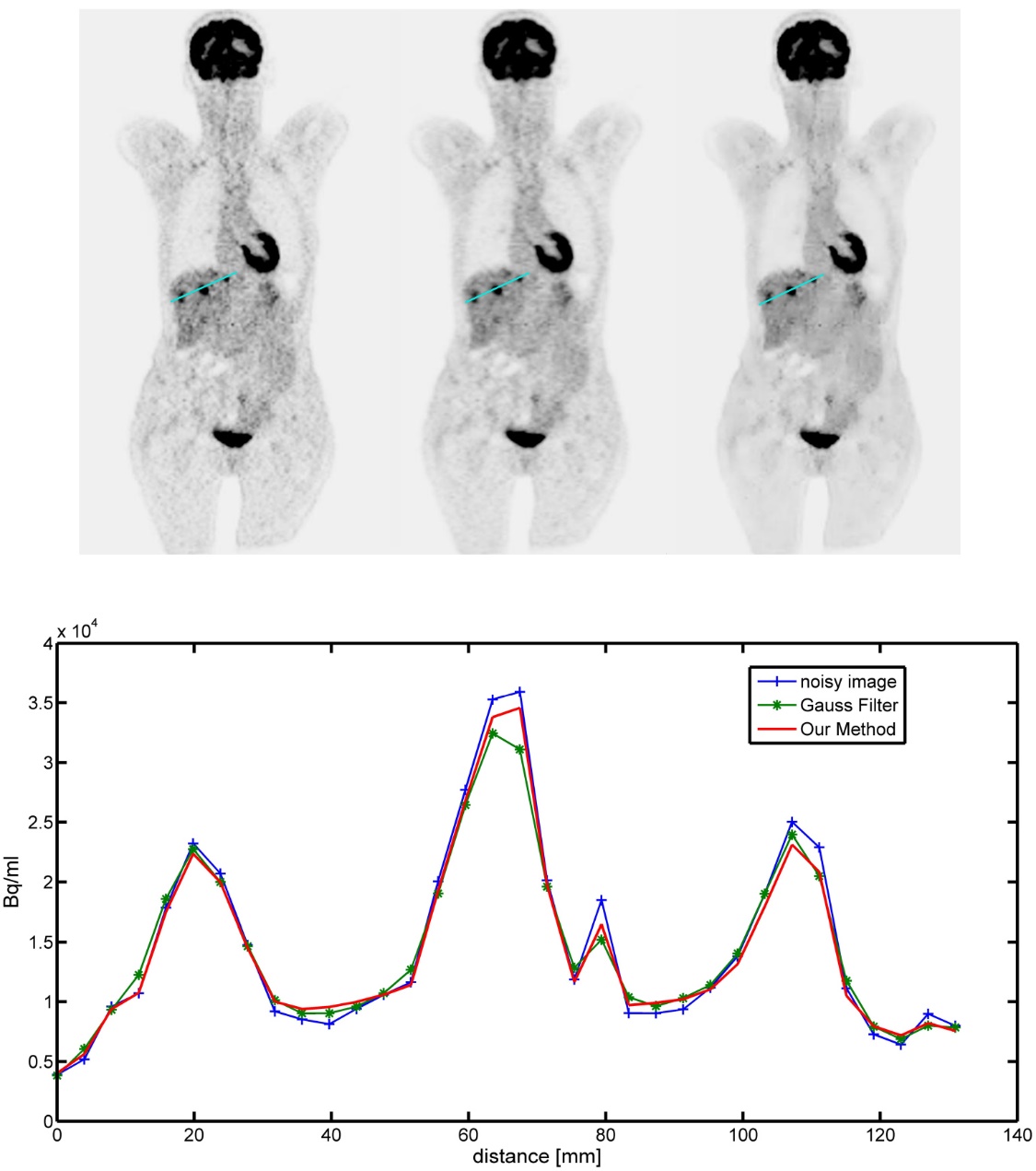


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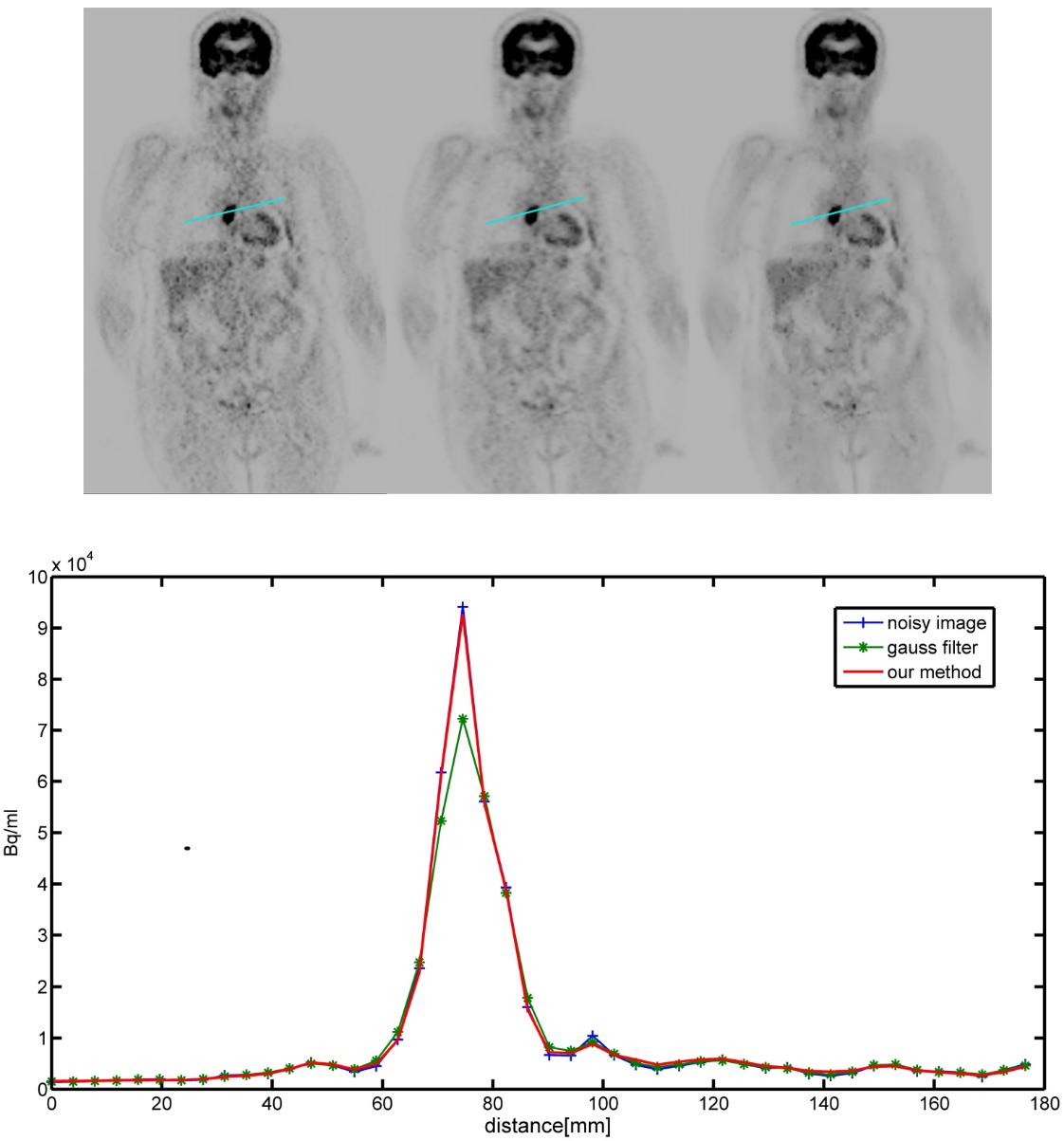


Figure 12: This image shows the sixth figure used in the paper Denoising of PET Images by Context Modelling Using Local Neighbourhood Correlation with the caption of “Example patient 2; coronal slice with mediastinum lesion. Top: image without post-reconstruction filter (left), standard Gaussian filter processing (middle), wavelet filter processing described (right). Bottom: profiles are shown for each image throughout the lesion.” (Huerga, et al., 2017).

## Figure 7

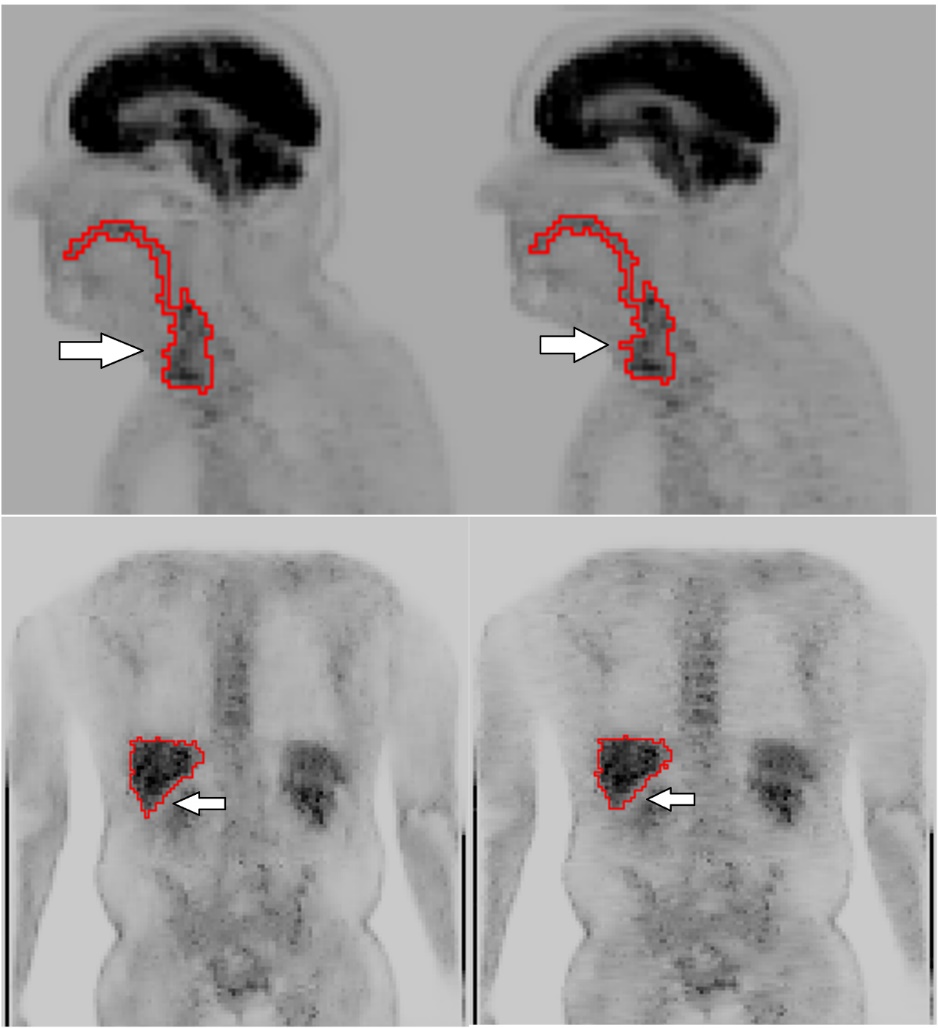


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## Discussion

## References

# Conclusion

References

Huerga, C. et al., 2017. Denoising of PET images by context modelling using local neighbourhood correlation. *Physics in Medicine & Biology,* 62(2), pp. 633-651.