Comparisons of Filters for Noise Removal of Cancer Cell Scanning Electron Microscopy Images

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Abstract

The challenging task of image processing is to reduce noise in image, which helps to improve the image for further process. This paper proposed bilateral filter, the best choice for removing noise as well as preserving edges in cancer cell image. To show the ability of bilateral filter for removing noise, another famous edge preserving filter called anisotropic filter and a popular multi-scale resolution analysis method called curvelet were tested on breast cancer microscopy images. Experimental result shows that bilateral filter is superior among the tested algorithms in terms of removing noise as well as preserving edges.

References

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Index Terms

Computer Science

Image Processing
Keywords
Bilateral  anisotropic  poisson  Gaussian  noise-removal  curvelet transform