Abstract

In Electrical Impedance Tomography (EIT), the resulting voltages developed by injecting a constant electrical current at the boundary electrodes are used to obtain images representing conductivity. Electrical Impedance and Diffused Optical Reconstruction Software (EIDORS) is used in this tomographic imaging. This paper compares different reconstruction algorithms used in EIT experiments conducted on a circular plastic phantom. Priors like Noser, Laplace, Tikhonov, Total Variation (TV) and Gauss-Newton and Back Projection algorithms are used for detection of nonconducting impurity. The images thus obtained are compared with respect to shape and size of impurity and perseverance of image contrasts.

References

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**Index Terms**

Computer Science

Algorithms
Keywords
Priors Regularization Impurities Jacobian