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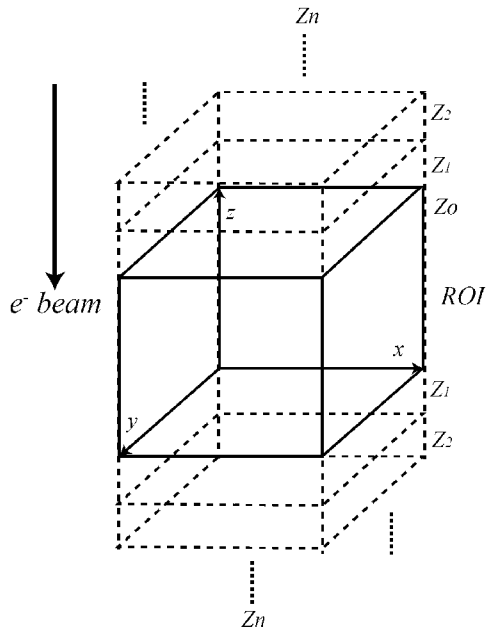
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(54) **Title**: EXTENDED FIELD ITERATIVE RECONSTRUCTION TECHNIQUE (EFIRT) FOR CORRELATED NOISE REMOVAL




(57) **Abstract**: Computerized method and system for improving 3D reconstruction images involves applying the Extended Field Iterative Reconstruction Technique (EFIRT) to remove correlated noise, in addition to using COMET (constrained maximum relative entropy tomography) to eliminate uncorrelated noise, wherein the EFIRT is applied by performing a set of successive reconstructions on an extended field larger than a region of interest (ROI); and extracting and averaging the ROI from said set of successive reconstructions.

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