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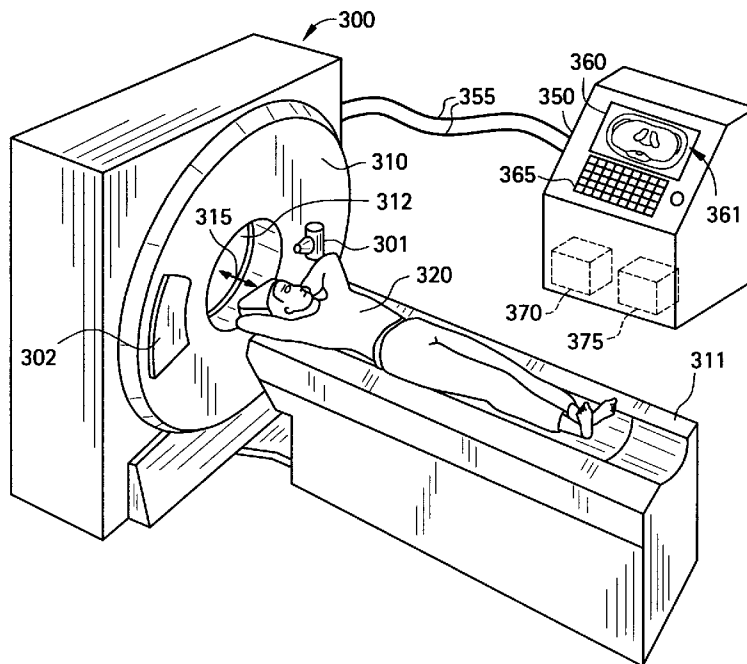
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[Continued on next page]

(54) Title: METHOD AND SYSTEM FOR ITERATIVE RECONSTRUCTION



(57) Abstract: A method for reconstructing an image of an object, the image comprising a plurality of image elements, is disclosed. The method includes accessing image data associated with the plurality of image elements, applying a first algorithm to the plurality of image elements, selecting a spatially non-homogenous set of the plurality of image elements, and applying an iterative algorithm to the set of image elements to reduce an amount of time necessary for reconstructing the image, or to improve an image quality at a fixed computation time, or both.

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A. CLASSIFICATION OF SUBJECT MATTER

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USPC - 359/32

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
USPC: 359/32Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC: 600/300, 443, 359/33

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

PubWEST(USPT,PGPB,EPAB,JPAB); Google Scholar, Google Patents

Search Terms: image reconstruction, algorithm, coordinat descent, ordered subset, filtered backprojection, conjugate gradient, criteria, iterative, convergence, absolute magnitude, non-homogeneous, positivity, CT scanner, response history, error sinogram, image dat

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2004/0068167 A1 (Hsieh et al) 8 April 2004 (08.04.2004), para [0036]-[0037]	1-13 and 23
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Y	US 20030095135 A1 (Kaasila et al) 22 May 2003 (22.05.2003) para [0175], [0217]	2, 11, 15
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Y	US 2004/0122882 A1 (Zakharov et al) 24 June 2004 (24.06.2004), para [0028]	4, 8, 9, 16
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Y	US 6,768,782 B1 (Thibault et al) 27 July 2004 (27.07.2004), col 2, ln 29-38	5-9

 Further documents are listed in the continuation of Box C.

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Y	US 7,068,849 B2 (Zandi et al) 27 June 2006 (27.06.2006), col 8, ln 7-51	6, 18-20
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