

5. A method according to claim 4, when dependent on claim 3, in which said step (c) is performed by generating a modified force function V^* defined over the first image, by modifying the first force function V for the first image using the second force function V for the or each neighbouring image, and

5 identifying the region of the neighbouring image using the modified force function.

6. A method according to any preceding claim in which step (a) comprises:

10 obtaining an initial estimate of the region of the first image corresponding in position to the first ventricle by a clustering algorithm to partition pixels of the first image into clusters, by minimising a dissimilarity function which is a sum over the clusters of a respective dissimilarity measure of the clusters,

the dissimilarity measure for at least one of the clusters employing a term which takes a relatively lower value for a pixel of the cluster within a circular region and a relatively higher value for a pixel of the cluster outside the circular region.

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7. A method according to claim 6 further including improving the initial estimate iteratively to obtain the first estimate of the region of the first image.

20 8. A method according to any preceding claim, wherein step (a) comprises: ~~of identifying, within a medical image of a subject, a portion of the image which corresponds in position to an anatomical structure, the method comprising:~~

defining a circular region within the first image defined by a plurality of parameters including a centre location of the circular region;

defining a plurality of clusters;

25 apportioning pixels of the first image between the clusters, and varying the parameters defining the circular region, to minimise a dissimilarity function which is a sum over the clusters of a respective dissimilarity measure of the cluster,

30 wherein the dissimilarity measure includes, for at least one of the clusters, a term which takes a relatively lower value for a pixel of the cluster within the circular region and a relatively higher value for a pixel of the cluster outside the circular region.

9. A method according to any of claims 6 to 8 in which the anatomical structure is a left ventricle (LV).