GRAPH−THEORETIC IMAGE REGISTRATION USING PRIOR EXAMPLES (TueAmOR8)

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Abstract :

Information theoretic image and volume registration is currently of interest as a method for multi−modal alignment. It has been suggested that it is useful to incorporate information obtained from previous registrations into these methods to improve future registration performance. In this paper we examine how this can be done when using a graph theoretic estimator of entropy. Our main contribution is a method for incorporating prior information in a natural way and with minimal computational overhead into a registration measure based on a Euclidean minimal spanning tree estimate of entropy.

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