A method for determination of an optimal spatial direction of vessels in the problem of reconstructing the 3D topology of a coronary system

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Abstract

The article considers the problem of reconstructing the spatial tree-like objects based on projection images. A method is proposed for choosing the optimal direction of movement along the branch, based on the analysis of spatial intensities using a sphere of possible directions. Two methods are proposed for detecting the intensity minimums on the sphere. This approach allows to restore spatial objects based on a small number of observed projections, observed projection.

Keywords: projection images, method choosing the optimal direction, intensity on the sphere

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